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THE

LONDON

MEDICAL REPOSITORY,

MONTHLY JOURNAL,

AND

REVIEW.

LATELY UNDER THE SUPERINTENDENCE OF

G. M. BURROWS, M.D. F.L.S. &c. AND A. T. THOMSON, F.L.S. &c.

NOW EDITED BY

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Quærere Verum. HORACE.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

A Sketch of the Medical and general Topography of Huddersfield and its adjacent District. By J. K. WALKER, M.D. of Caius College, Cambridge, and senior Physician to the Huddersfield Dispensary*.

HUDDERSFIELD, or as it is called in Domesday, Oderesfelt, is supposed to have derived its etymology from some Saxon or Danish colonizer of the name of Oder; and if at any time before the conquest it rose beyond the obscurity of a petty village, we are assured that at an early subsequent æra it relapsed to a mere waste. Some acknowledged symbols of druidical worship, the site of a Cromlech, and several stupendous rocking stones to be found in different parts of this district†,

* This paper, especially as it is on a subject of more particularly local bearing, may, at first sight, appear to the reader to occupy too large a proportion of our pages. We confidently, however, anticipate a different feeling in those who will give it an attentive perusal. Its eloquent author has introduced, in the course of his dissertation, so many remarks of universal and practical importance, and has contrived to stamp the whole discussion with so pleasing an impress, that we are persuaded we do not err in expecting its favourable reception, as an article of general interest. — EDIT.

† Not far from Meltham there is a stone of this kind; but the finest druidical remain in the parish of Huddersfield is in Golcar, on Wholestone Moor. There are others to be seen at Barkisland, Norland, Sorserby; &c. in Halifax parish.

make it more than probable, that this mountainous part of the Vale of Calder was once the favourite resort of Druid priests, and the consecrated scene of druidical mysteries.

In the absence, however, of any material relics of antiquity*, with so few data to build upon, it would be an encroachment upon the valuable pages of the Medical Repository, to speculate upon a subject purely of local interest. In a district making such rapid strides in population and commercial aggrandizement, it is of deeper moment to fathom into the causes, natural or artificial, which constitute the aliment of its rising importance. Whoever is disposed to trace to their source those hidden springs, which furnish the materials of our commercial greatness, or to pry into the arcana of national wealth, will here find his eyes refreshed by that splendid display of industry, which, in the space of little more than a century, has converted one of the most sterile and barbarous spots in the island, which Cambden has described to be "solum sterile, in quo non modo non commodè vivi, sed vix vivi possit," into a civilized and opulent district, resorted to from every quarter of the globe, for the extent and superiority of its manufactories†. The town of Huddersfield stands in a valley embosomed on every side with hills; and, as is the case with

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* Though there is confessedly very little in this district to indemnify the antiquary for his researches, we have yet one splendid exception. The celebrated Roman station Cambodunum, is within the parish of Huddersfield, on the confines of Stainland, and actually within Longwood. This was the only Roman station noted between Calcaria and Mancunium. We owe it to the learned labours of Mr. Watson, and Dr. Whitaker, that this desideratum is at length established, and to those works I refer my reader for further intelligence. It is now certain, that the very obvious vestiges of a once formidable conflagration in the town of Almondbury, led Camden into an error in confounding it with the Campodons of Bede. He committed a twofold error, first in supposing that Campodono and Cambodunum were the same, and next in fixing the original site of those towns on the hill of Almondbury; whereas antiquaries have all agreed, that the Campodono of Bede was situated near Doncaster, and we know at length that the Roman station Cambodunum was at Slack. Dr. Whitaker, however, while he admits it to be in Huddersfield parish, has thought proper to include it in his description of Halifax.

† Huddersfield, as well as Almondbury, Kirkheaton, Thornhill, &c. were formerly dependents on the Saxon parish of Dewsbury, and to this day testify it by prescriptive payment. Dewsbury was the common parent of most of the parishes in its vicinity, as well as others more remote in the valley of the West Calder. Camden has mentioned the cross found at Dewsbury, with the well-known inscription, "Paulinus hic prædicavit et celebravit."

other towns in the vicinity of coal-pits, presents but a sombre appearance to the traveller, in a hazy state of the atmosphere; but the town itself, with a few exceptions, is admired for the general symmetry of its buildings, and for that air of cleanliness so peculiar to those districts where quartz abounds. It is situate on the banks of the River Colne, which rises near the source of the Don, and falls into the Calder near Nunbrooke. Its altitude above the level is about two hundred and forty feet, distance from the sea fifty miles, from London one hundred and eighty miles, N.; its population nearly eleven thousand: but if a circle be drawn round the town with a radius of ten miles, its circumference will enclose a population of not less than one hundred thousand souls. It maintains, by the junction of its canal with the rivers Calder and Colne, near Cooper Bridge, a communication with the great trading towns of Halifax, Wakefield, Leeds, Hull, &c. A tunnel of nearly three miles and a half in length connects one of its branches with the Ashton canal; not, however, without a lockage of seven hundred and seventy feet in less than twenty miles. Such was the nature of this stupendous enterprise, which, it is much to be feared, from present appearances, will but ill indemnify its projectors. Besides these larger streams, there are every where interspersed innumerable gullies and waterfalls throughout this mountainous district, which present inviting situations for the erection of mills, drying-houses, &c.; and which, with the aid of coal strata, and steam engines, constitute the principal basis of our local wealth. Of the chemical and constitutional properties of the common water springs to be found in this neighbourhood, I have spoken on a former occasion *. Of those which are reputed medicinal ones, I fear there is nothing very attractive to record. But to a manufacturing population, where so many anomalous diseases perpetually present themselves among the poor from inadequate cleanliness, defective or unwholesome diet, and other causes, it must ever be regarded as a desideratum to have within their daily compass the use of such mineral waters as usually prove so powerful an adjunct to medicine in expelling these obstinate affections. Every practitioner must have remarked the formidable number of cutaneous diseases of indefinite duration, some resembling urtica or variola, others with the semblance of herpes; and more than all, the victims of scrofula, in all its Proteal forms, continually baffling his efforts, but which have yielded to the use of mineral waters. Many of our populous villages are gifted with this rich boon of Hygeian fountains, which, if not endowed with those singularly brilliant properties

* Vide Medical Repository, September 1816.

ascribed to springs of greater notoriety, are yet important to the poor, to whom all access to distant scenes is impracticable. Near Holmforth, Lockwood, Kirkheaton, and Slaithwaite, are to be found springs yielding, on analysis, different proportions of sulphureous impregnations. In the township of Soyland there is a strong chalybeate. In Eringden, in the parish of Halifax, there is another with an impregnation slightly sulphureous, as well as chalybeate. Haley Green Spa has already been analyzed so accurately by Dr. Garnet, that it is not requisite here to do more than to name it. The contents of the Lockwood Spa, (which is in the immediate vicinity of Huddersfield,) are, by my analysis, as follow :

Saline Contents in a Wine Gallon.

	Grains.
Muriate of Soda	18.75
Muriate of Lime.....	6.40
Sulphate of Magnesia ...	17.30
Sulphate of Lime	16.50
Carbonate of Lime	3.87
	62.82

Gaseous Contents in Cubic Inches.

Sulphuretted Hydrogen Gas.....	3.50
Atmospheric Air.....	4.08
	7.58

Though the effects of these waters are confessedly greater than one would, *a priori*, expect from a knowledge of their constituents, yet I have frequently ordered them to more than a pint a day without any sensible operation. On this account I have oftener employed them as a menstruum, for the solution of different neutral salts, than relied upon them for any marked efficacy per se. They are, however, not to be despised for the minuteness of their impregnation, and have proved, when under proper management, very important auxiliaries, especially in those anomalous defedations of the skin so common amongst the poor. This water, however, is inadequate of itself to act as an aperient. Its more specific function seems to be to create a determination to the kidneys, or expend itself on the skin by salutary perspirations. It is also, occasionally, of use as an external topical application.

The winds which prevail more frequently than any other during every month of the year, are the west and south-west, which, passing over a large tract of the sea, and meeting nothing to break their current until they reach that chain of

hills called Blackstone Edge, come to us surcharged with vapours. Mr. Watson, in his History of Halifax, has alleged, that in several parts of that parish the winds from the south-west have sometimes blown so strong, that the pieces of cloth on the tenters have been charged with a considerable number of saline particles. As yet, however, I have never had it in my power to confirm this phenomenon. If the fall of rain be more abundant in this mountainous district on this account, there is, at any rate, very little stagnant water, from the great inequality of the soil, which soon draws off the excess; and the absence of every thing like marshes contributes materially to the salubrity of the air *. It will be seen, on a reference to the annexed table of diseases of the dispensary for nearly four years, that out of more than five thousand patients, not a single case of intermittent fever has been admitted; and I believe it is not in the memory of the oldest practitioner, that such an example has been known to occur, except in patients, perhaps, lately become inhabitants. On comparing my own experiments with the registers of other towns, I am led to infer that the air in general is not more humid than in many champaign countries, where the ground is more level, and the rain less. A long drought would *paralyze* the mills of the whole district. The soil of this district is variable, but not, I think, so much so as in districts where there is an argillaceous predominancy. With a prevailing subsoil of quartz, originally covered over with heath, ling, broom, and brushwood, the sterility must have remained unsubdued to this day, had not a thronged and hardy population, created solely by manufactories, and drawing their corn from distant markets, produced an increase of tillage, and other advantages, which not all the skill and industry of the husbandman could have effected without such aid; for there is neither lime, nor marl, nor any other product of nature at hand to improve the soil. What lime is now used for the purposes of agriculture, is brought by the canal from Knottingley, and is found to suit the nature of the soil. Though formerly oats, and those chiefly black, formed the principal part of the grain sown here, and oats the general breadcorn of the neighbourhood; yet both wheat

* The proportion of rain in the wettest months for these two last years exceeds, on an average, what falls in London, more than half an inch, by my own experiments, and that of others. The quantity during the month of November last was two inches. As to the temperature, the thermometer varies in different parts of every town at the same period. On the 18th of July, 1816, it stood at mid-day, by my thermometer, at 88°: in January of the same year, it stood as low as 20°: in 1817, the heat on the 10th of July was 83°: and at one time during that month it was as low as 50°.

and barley crops are now every where raised, and wheaten bread as commonly used as that from oats. But the quantum of arable land at present bearing no proportion to the population; for the major part of the cerealia we use, as well as most of our culinary herbs, we are consequently indebted to our agricultural neighbours. The soil and climate of Wakefield are more genial than those of Huddersfield, and more subservient to the growth of vegetation, and the district itself more addicted to the pursuits of agriculture. What gives our portion of the Vale of Calder such an increased influx of population and opulence, is its superior aptitude for the purposes of its local manufactories: while these continue, and as long as there are not wanting capital, and men of talents and industry to apply that capital, it is more than probable that it will continue to rise in the scale of relative importance.

How long, however, these privileges may continue, or whether, in the process of ages, any other spot shall offer to the arithmetical eye of the commercial speculator more flattering inducements, it is not in human ken to foresee; but it needs but a slight acquaintance with history to discover, that the prosperity of towns and districts, as well as of states, is fleeting and transitory. Like heavenly bodies, they have their perihelion and aphelion of splendour, and are occasionally eclipsed by the proximity of a superior luminary*. Huddersfield, that less than a century back was not equal to half of the population and opulence of Wakefield and Halifax, is now at least equal, and, from all appearance, at no distant period, likely to outstrip both.

The mineralogist, I fear, will find little to detain him in his researches through this district: most of the rocks consist of a congeries of silicious particles, or what is termed in the Wernerian Nomenclature, a quartzy sandstone. The species of the sandstone are as various in colour, fracture, and hardness, as the uses to which they are applied; some with their particles of quartz cemented by a silicious, others with an argillaceous basis; but what form the most interesting feature in the mineralogy of this district, are the numerous patches of coal formation, which pervade these stratifications of sandstone. By these immense subterraneous reservoirs of inflam-

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* It is instructive to watch the fluctuations of local prosperity. The relative consequence of Leeds and Bradford was very different in the time of Leland from what we find it at present. "Ledis," says he, "two miles lower than Christal Abbey, on Aire Rywer, is a pretty market, having one paroch chirche, reasonably well builded, (that is the town, not the church) *and as large as Bradeford*, but not so quik as it."

Halifax, in the year 1443, contained only thirteen houses.

mable matter has nature compensated for the wild and ungenial nature of the soil, and has converted what, probably, must otherwise have remained a comparative desert, into the abode of opulence and luxury. The stratifications of this mineral are found at different angles with the horizon, never exactly vertical or horizontal *to any extent*, the most common dip being from one in five to one in twenty. The coal found in this district, as might be expected, has the usual varieties, some with more carbon and less bitumen, others the contrary. Those specimens of cannel coal which I have seen, have most of the usual properties of this species, such as little lustre, conchoidal, and sometimes cubical fracture; but seldom, I think, of so hard a texture as to be made to receive a polish, or be convertible into toys. The Emley coal is used for smelting iron, for which, by its properties, it is peculiarly adapted, containing no slug in it. Emroyd pit furnishes three different minerals, viz. stone coal, common coal, and iron ore. This is supposed to have been an old Roman station, selected, probably, by that industrious people for its iron ores. Emley Woodhouse has also a considerable proportion of iron stone near the surface. The ferruginous claystones found are chiefly of an amorphous kind, though some of them are oviform and globular, their spec. grav. being about 2850. The most curious specimens, however, of argillaceous iron stone that I have seen, are some of those that were found in perforating the tunnel of the Huddersfield canal, in the centre of a rock of argillaceous quartz. They were of various extraneous shapes, elliptical, globular, oblate spheroids, &c. some of them having the resemblance of a pedical attached to them. Those I have before me vary in diameter from three to twelve inches. Their spec. grav. is about 4810. The most extensive colliery in this neighbourhood is Flocton Colliery. The coal from these pits is received on board at Horbury Bridge, and from thence sent by water to Hull, Gainsboro, Beverley, and other parts of the county.

It is not necessary, if it were in my power, to enumerate all the different strata, so widely dispersed in every direction: the few following specimens may serve as indicative of the general properties of the whole:

100 Parts.	Cannel or Stone Coal from Emroyd.	Coal from Flockton, best State Coal.	Hopton.	From a Pit near Huddersfield.	Emley.
Charcoal	68.70	55.80	52.65	45.52	58.20
Bitumen	26.18	38.00	40.25	41.26	34.85
Earth	5.12	6.02	7.10	13.20	6.95
Oxide of Iron	0.00	0.18	00.00	0.02	00.00
Spec. grav.	1.170	1.327	1.378	1.408	1.280

In these, as in other specimens, various shades of difference exist; no two exactly similar in texture, aspect, and chemical quality. In general, however, when a strong heat is wanted, the cubical and slate coal are preferred. I have discovered in many parts of this district some curious schistoze layers of stone, especially such as have served as a roof to the coal, which exhibit vegetable impressions of leaves, ferns, and moss plants, cryptogamia; and in the vicinity, of iron stone, forms of shell fish, and in some the leaves of plants now indigenous*.

It is with pleasure I communicate, that in most of the coal pits the use of the wire gauze safe lamp is eagerly adopted. Had this been the case sooner, we should not have heard of so many of those fatal accidents, which have cost many useful lives, and stopped the working of many valuable mines. I take this opportunity of observing, that this scientific invention has been tried in the most dangerous mines in the neighbourhood of Newcastle and Whitehaven, which are far more exposed to currents of explosive gas than any in this district, and uniformly with the greatest success. The fear once entertained of any combustible substance fixing at the outside of the lamp, when the gas is burning within, must now be entirely dispelled by the experiments of Sir H. Davy, who sprinkled the finest coal dust, powdered rosin, lycopodium, powdered pyrites upon the gauze wire, with no other effect than a great blaze, but without the slightest explosion. By this invention the learned author has entitled himself to the gratitude of every friend of humanity, and of the manufacturing interests of the empire.

Where coal is so abundant, it is natural that the use of gas lights should be adopted, to supersede that of candles and

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* In other mines impressions of tropical plants have been found. It has been usual to explain this, by supposing that at the universal deluge the poles of the earth were changed in this direction: but most, if not all the coal formations are found in countries lying nearest the poles: and as we see in every climate throughout the globe, productions adapted to the wants of their respective population, if the polar axis be changed, and our region (as of course by this hypothesis it must,) have been at one time nearer to the equator, or under a more genial latitude, it seems at variance with the ordinary operations of Providence, to have placed these inexhaustible magazines of artificial warmth under a vertical sun. The truth is, the formation of our globe, along with the various convulsions which have, at sundry times, agitated its surface, are amongst those inscrutable arcana, around which an all wise Being has thrown a veil of impenetrable drapery.

oil; and I believe in most of our principal manufactories* here, as well as at Manchester and Leeds, it is used with that end. The superior cleanliness, the supersession of the trouble of filling and trimming oil lamps, the absence of all fear from sparks and snuffs, the more equable brilliancy and beauty of the light, are, indeed, cogent arguments for its more extended employment. That it is less salutary, I know, has by some been maintained; but, after diligent inquiries, I could never ascertain that any ill effects have been *as yet* sustained from its use, *under proper management*; nor do I think there can be the least ground for apprehending (as some have done) casual explosions, wherever there is an open chimney and a door. Let any room, e. g. (suppose twenty feet square,) consequently admitting a volume of air = 8000 cubic feet, and suppose from some fault in the pipes, or otherwise, a quantity of gas should escape = 10 cubic feet per hour. It is known, that to be explosive, atmospheric air must be mixed with at least one-seventh of its volume of coal gas; therefore upwards of 1000 cubical feet of coal gas must escape, before any such accident can occur. It is sufficiently evident, that if the room itself were air tight, from the length of time intervening before the possibility of such a danger, it can hardly ever occur in large manufactories. The many pounds annually saved to the community, in the diminished consumption of oil, could not be better appropriated than in making soap for the requisite cleanliness of the poor, a neglect of which is the parent of so many diseases.

Though in a district where mechanism and industry have attained to such an unexampled height, and where the expansive property of steam is so well understood, it would require a volume to enumerate the multifarious drudgery which this aërial agent is here called upon to perform; yet I deem it a subject worthy to be noticed here, from the share it has in our local prosperity. That inimitable production of human skill, the steam-engine itself, seems likely to prove one of the most momentous discoveries of modern times, and has already contributed most largely to the comfort and convenience of the human race. Where coal strata abound, and a single bushel of coals can be made to do the work of ten horses, and

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* I have been informed, that the insurance offices (so satisfied are they of the diminished risk of accident from fire) have admitted a deduction in their terms of insurance, wherever gas is employed to supersede oil and candles.

raise not less than 6000 hogsheads of water per hour, it is easy to see what a vista is opened for human ingenuity. We find, accordingly, the boundaries of its utility daily expanding. It is already employed to convey heat in dyeing and drying houses, to supersede fires in factories, mills, and even in some private houses, and sometimes in the forcing of plants in green houses and hot houses: and the interval, I trust, will not be long when our churches also will be rendered more comfortable by a similar contrivance. Where steam boilers have been brought into such general use, the increased facility of annexing vapour baths in commodious situations has already engaged the attention of many of the resident practitioners of this district. The reader who is inclined to become acquainted with the class of diseases most adapted to their use, will do well to consult Dr. Kentish's Treatise on Vapour Baths; and for plans for vapour baths, the Honourable Mr. Cochrane's book. It is of importance to learn, that in almost every instance, where the use of steam has been adopted to supersede fires, it has not only answered the end in view with *less expense and trouble,* but that by its more equable diffusion of heat in a given area, less injury has accrued from its use. Sure I am, that in all those cases where it is employed as a succedaneum to fires, whether in manufactories, or private dwelling-houses, the health of the inmates is less likely to suffer, than from the partially diffused warmth of common grates, to say nothing of the frequent noxious vapour set at liberty from the coal itself. In most of the manufactories which I have seen so heated, the temperature of the apartment was equable and regular, and seldom exceeded 80°; and what is the most material test of its excellence, both the comfort and health of the inmates seemed decidedly improved by it. I have been credibly informed, that the number of pulmonary cases especially, has been on the wane in all those manufactories, both at Leeds and Manchester, where this succedaneum has been adopted.

It is very difficult in a district like this, where there are so many dissenters and sectaries who perform the ceremony of baptism, as well as bury, at their respective places of worship, to form an accurate estimate of its relative population and mortality. The returns, therefore, which I shall here present of the baptisms and burials, must be considered as a mere approximation to the truth, including only extracts from the register of the parish church: —

Burials at Huddersfield Church.

	1813	1814	1815	1816	1817
to 2	68	48	67	120	62
From 2 to 5	6	13	16	17	15
5 to 10	3	8	12	8	7
10 to 20	11	5	20	14	12
20 to 30	17	11	9	15	19
30 to 40	9	18	9	8	11
40 to 50	13	9	10	16	9
50 to 60	9	6	13	4	10
60 to 70	15	19	17	13	17
70 to 80	9	14	7	13	17
80 to 90	6	5	5	5	4
90 to 100	1		1	1	
Baptisms during the same years.	309	369	366	349	354

From which the reader will see, that the deaths during the last five years, were, in 1813, about 1 in 60
1814 —— 1 — 64
1815 —— 1 — 53
1816 —— 1 — 41
1817 —— 1 — 54.

From this succinct view of the mortality of this town, it will be seen that the average mortality of Huddersfield does not exceed that of the aggregate population of the United Kingdom; and probably this town, in point of salubrity, is not inferior to other manufacturing towns. In Young's Table at the end of his Practical Nosology, the annual mortality of the different counties of England and Wales is stated to be, beginning with Middlesex, as one in thirty-six, and ending with Cardiganshire, as one in seventy-three: Glamorganshire is stated at one in fifty-three. If in the three last years, and especially in the year 1816, when the mortality was one in forty-one, we have exceeded our usual standard, the cause will be found in the extended ravages of typhus and scarlatina; which, it will be seen by a reference to the reports of the dispensary, constituted during two years more than a decimalth part of the diseases; and in the year 1816, nearly one-fourth of the whole of the cases admitted. It must be taken into the account too, that other simultaneous causes co-operated with these contagions, such as the dearness of provisions, the deteriorated quality of bread, and defective clothing, which contributed to swell the catalogue of mortality at that period. It will be observed, that out of nine hundred and twenty-seven deaths, there were no more than three that exceeded the age of ninety, and the oldest of these was ninety-eight;

no very flattering indication, it must be admitted, of superior local longevity. There is nothing, however, in these or any other reports, that I have perused, of a nature to invalidate the assertion of Mr. Colquhoun, in his Treatise on the British Empire, that mortality is generally decreasing in this island. I feel gratified in remarking, that the aggregate of infant mortality is considerably below the usual standard; for, leaving out the year 1816, which, as I have before stated, was a year of extraordinary fatality, and more especially to the infant poor; the number of children that are here registered, as having died before the completion of the fifth year, out of a population of nearly eleven thousand, falls short of three hundred, during a lapse of four sickly years; while the baptisms of that period were one thousand three hundred and ninety-eight, a proportion actually within the average of deaths that ordinarily take place in large manufacturing towns. The observations here made are nearly applicable to the neighbouring parishes during the same period; and as the average mortality is pretty similar in all of them, I have not thought it necessary to insert them here.

I trust that when the prejudices of the poor of this district against vaccination shall be layed, and effectual methods adopted to arrest the spread of contagion in its nascent state, the mortality of this tender age will still further be curtailed. It is with regret, however, I observe, that variola has, for several months back, prevailed in many parts of this populous district, and is daily adding to its victims. It will require the co-operative effects of all the enlightened part of the community, in union with the faculty, and of the magistrates and clergy in particular, to sweep away this pestilence. At present, the practice amongst the *poor, in some parts, of vaccinating their own children,* (frequently with improper matter,) has, as might be expected, been followed by failures, which the prejudices of the poor are always ready to quote as tests of its inefficacy.

It cannot have escaped the medical observer, that in this capricious and inclement climate, the frequent inattention of the poor to the adequate clothing of their children has been another very fertile cause of the fatality at that trying period. That children have borne excessive cold with impunity, is not denied; and that *some of those* who have survived such exposure, have acquired an unusual degree of hardiness, I am equally free to admit; but that a train of disorders has been summoned into activity by this practice, where they would otherwise have remained dormant, is a position warranted by daily experience. The custom, too, of crowding several children into one room, or in one bed, so frequent in all

manufacturing towns, prevails in the more populous parts of this district, often, indeed, from actual necessity; but its consequences might be much palliated, in all cases, by a closer attention to cleanliness. In the town of Huddersfield, the number of damp and ill-ventilated cellars, the dirty patches of houses in Castlegate, and the western extremity of the town, are among the last retreats of disease and dirtiness; and wherever any epidemic begins, sooner or later it finds admission here. It is exactly in such situations that the benign interference of the higher orders is most successful, and operates with a talismanic power in transforming the abodes of despair into a scene of comparative comfort. Whoever would take the exact gauge and span of human misery, in all its ramifications, might, I think, see it in perfection in those dark and dismal haunts of *disease and poverty,* so common in a too crowded population. It is here that misery sits enthroned with all her satellites in her train, and attests her triumphs in the cold and loathsome tenement, in the haggard look and emaciated visages of its inmates. Perhaps some father laid on a bed of languishing, with a sick and numerous family around him, shunned by his neighbours for fear of contagion, and sometimes without the necessary comforts to support his sinking frame. There is an eloquence in the imploring looks of his family, that neither the pen of the writer, nor the artist's pencil, can portray. In many such instances, however, much alleviation is possible; and though it is difficult to expel contagion, under the most favourable circumstances, where it has once made a lodgement, yet, where there is a co-operative spirit among the poor, much may be effected. Whatever be the nature of contagion, it is notorious that its violence and fatality are inversely as the degree of cleanliness and free ventilation; and though its propagation may not always be arrested by these desiderata, it is certain that its rapidity and malignity are both curtailed by them. If it be conceded, that contagion has a specific power of diffusing itself to a certain distance, in every direction, and imparting its qualities to a certain portion of ambient air, as well as to all bodies, animate or inanimate, within its diameter, then it is obvious, that clothes, furniture, &c. (all of which have been known to be pawned by the poor in such a dilemma,) if once brought within this morbid circle, may become conductors of such contagion. It is the interest, therefore, of the community to impart *timely* relief to such distress, as the first step to circumscribe the area of its malignity, and not to neglect those preventive expedients which *well directed* charity can devise. The extreme indocility and stubbornness of the poor are never more fatal than when they surrender themselves,

without a struggle, to their fate, in this perilous crisis. But, alas! can it be wondered at that the poor should sometimes lend a deaf ear to the suggestions of their superiors, when too many are found among them who dole out the coldest offices of charity to each other with a reluctance, surmountable only by the hope of some prospective emolument? I fear that too much of this arithmetical spirit is apt to unfold itself even in those awful moments where all sublunary concerns should have lost "their eager grasp." Experience, however, has proved how ineffectual are all detached efforts to smother the flame of contagion: if extinguished in one corner, it is suddenly rekindled in another. Until the example set by the larger manufacturing towns in establishing *a house of recovery for the reception of fever patients*, shall be followed here; palliatives may, indeed, and ought to be administered, but a radical removal of the calamity is hopeless. It is, in many cases, desirable to visit twice or thrice daily in certain stages of fever; but how is that to be accomplished, while the patients lie at such a distance, and so dispersed? It is not in the town merely, but in its environs, that contagious fever has raged with severity during the last year. To have conquered this, the regulations laid down by houses of recovery were alone efficient; the first, and most important principle in which is, "principiis obsta." It appears from the annual reports of the house of recovery of Leeds, that a greater number of patients in typhus fever alone, were attended in the first four months of 1802, *than have been admitted into the house of recovery for typhus and scarlatina, during the ten years ensuing*. In 1802, whole streets were infected, nearly house by house: in one court of thronged population, typhus raged for four months successively; whereas, in 1814, thirty different streets produced no more than sixty patients of typhus and scarlatina conjointly. The timely removal of one has saved a whole family and neighbourhood from contagion. The expenses of the house, exclusive of furniture and repairs, ground rent, &c. amounted to no more than 195*l.* 7*s.* 4*d.*

It has been too common to accuse the poor of our manufacturing districts, of stupidity and barbarism; but where they have been suffered to remain in this state of supine stolidity, it is the fault of their superiors. Nothing can file off those moral asperities which deform and brutalize the character, but a better education; a blessing, let us hope, not far distant from the meanest. If children were not admitted into factories before they were able to read, a powerful incentive would be created for its acquisition in those minds in whom a better motive has lost its hold. The indigenous soil is not incorrigibly bad, but only permitted to lie fallow too long. Rank and

poisonous weeds have overrun that soil, which, if properly prepared by a moral husbandry, should have brought forth a salutary vegetation of civil and social virtues. Whatever be the cause of this deplorable barbarism, it is equally the duty of the rich to remove these mental blotches of the poor, as to administer to their bodily infirmities. If any thing can intenerate and reclaim minds formed in such a mould, it is the superintending and well directed philanthropy of the rich. "The lion will lick the hand of him who draws the thorn from his foot."

A Table of Diseases which occurred at the Huddersfield General Dispensary, with the Events of each, from 25th July, 1814, *to April* 1, 1818:—

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abscessus	71		Febris *Synoch*	120	
Amaurosis	20		—— *Typhodes*	138	9
Amenorrhœa	50		—— *Remittens*	59	8
Anasarca	29		Fungus Hæmatodes	2	1
Ascarides	57		Gastritis	10	2
Ascites	15	5	Gastrodynia	18	
Asthma	28	2	Hæmatemesis	14	
Apoplexia	9		Hæmaturia	42	
Bronchocele	21		Hæmoptysis	51	5
Cataracta	15		Hæmorrhois	39	
Catarrhus	170		Hemicrania	21	
Catalepsis	4		Hemiplegia	25	
Cancer *Uteri*	2		Hepatitis *acuta*	38	
—— *Mammæ*	2		——— *chronica*	43	1
Cephalæa	87		Hernia	16	
Cholera *m*	30	2	Herpes	28	
Chorea *S. Viti*	8		Hydrocele	10	
Colica	34	3	Hydrocephalus	15	
Cynanche *Tonsillaris*	68		Hydrothorax	18	10
——— *maligna*	28	3	Hypochondriasis	15	
——— *Trachealis*	8	3	Icterus	38	
Diarrhœa	66		Ischias	23	
Diabetes *Mellitus*	4	2	Lepra	10	
Dyspepsia	105		Lienteria	25	
Dysmenorrhœa	41		Leucorrhœa	53	
Dyspnœa	30	4	Lithiasis	16	
Dysuria	38		Lumbricus	98	
Eczema	16		Lichen	6	
Eneuresis	18		Melancholia	5	
Enteritis	10	4	Mania	7	
Epilepsia	26		Menorrhagia	57	
Erysipelas	56		Nephralgia	23	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Obstipatio	72		Scarlatina *simplex*	288	8
Opthalmia	82		——— *anginosa*	166	6
Palpitatio	23		——— *maligna*	79	4
Paralysis	40		Scirrhus	32	
Peritonitis *acuta*	23	3	Scrofula	217	12
——— *chronica*	21	2	Syphilis	29	
Pertussis	25		Spinæ *Morbi*	53	
Phlegmasia *dolens*	5		Splenitis	7	
Phlogosis	66		Spasmi	32	4
Phthisis *Pulmonalis*	39	13	Tabes Mesenterica	53	1
Physconia	12	2	Tœnia	10	
Pneumonia	78	10	Tumores	142	
Porrigo *decalvans*	42		Vaccinia	518	
——— *scutulata*	26		Variola	48	
——— *furfurans*	29		Urticaria	22	
Psoriasis *diffus*	55		Ulcera	320	
Prurigo	28		Miscellanea	209	
Rheumatismus *acutus*	142				
——— *chronicus*	198		Total of Cases	5542	———
Rubeola	62	3	Total of Deaths		132
Sarcoma	38		*i. e.* About one in forty.		

I shall reserve whatever remarks I have made on some of the more prevailing diseases which have occurred, as well as a slight survey of the botany of this neighbourhood, to some future occasion; having already exceeded the boundaries which I had originally prescribed to myself in these cursory details. If any thing can be found in them either useful or important, my object will be attained.

II.

On the Imperfect Union of Fractures. By R. Moyle, Member of the Royal College of Surgeons, in London.

——— "Artus vis ossibus hærent."

The acknowledged difficulty of curing simple fractures that have united by a substance wanting the firmness of bone, and the very painful methods of treatment usually adopted, make it unnecessary to apologize for transmitting the following observations on that subject, provided they contain any hints that may lead to a more easy and effectual mode of cure:—

By attending to the gradual formation of bone in the young subject, we can easily discover how nature proceeds in the process of uniting simple fractures; for in each there is the

same routine of operations. In the fœtus the gelatinous matter gives way to cartilage, which in its turn is succeeded by bone. Cartilage is known not to be that "inorganic concrete" which it was once considered, nor does it ever "harden into bone," but is completely organized; and the earthy matter which gives the requisite degree of strength and hardness to bone is a secretion or deposit from the vessels distributed through its substance: what the nature of the action of these vessels is we cannot explain, but it seems essentially necessary to enable them to perform this secretion that they should carry the red particles of blood.

Although during the process of ossification much of the cartilage is removed by the absorbents, to make way for the phosphate of lime, a very considerable portion still remains, forming their basis, and constituting nearly a third part of the whole*.

In simple fractures, after the extravasated blood has been absorbed, the neighbouring vessels pour out coagulable lymph, which affords a soft bed for them to shoot in: from these vessels is deposited cartilaginous matter. In some diseased habits nature seems unable to proceed any further, and the bones remain united by cartilage † only; and even in healthy constitutions, if the process is interrupted by the parts being frequently moved, the secreting arteries will not perform their office, and the union is incomplete.

It is from the want of susceptibility of the vessels in the newly formed cartilage to take on any increased action, or that peculiar one which favours the deposit of the phosphate of lime, that the difficulty in effecting a cure arises; and it is with the view of rousing the energies of the parts to induce new actions that we saw off the fractured ends of the bones, (thus making the simple fracture a compound one,) that they may be united by granulation.

This is a severe and frequently an unsuccessful operation, failing to produce the desired effect, notwithstanding the additional stimulus of caustic, red precipitate, and even the actual cautery. In relating a case in which much milder means were had recourse to with good effect, I am fully aware of the little importance to be attached to a solitary example, as tending to substantiate any fact in surgery; but being the only one I have ever met with, I beg leave to detail it.

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* In dried human bones in the proportion of 32.17 in 100.—*Murray's Chemistry.*

† Would not "cartilaginous union" be more proper than "ligamentous," which is generally used?

On the 3d of May, 1809, I was desired to visit Hugh Oates, a miner, in the parish of St. Just, aged about thirty-eight, a strong healthy man. On inquiring into the particulars of the case, I found that on the 30th of the preceding January, by the unexpected explosion of some gunpowder whilst blasting some rocks, he had the misfortune to break his thigh: it was reduced, and bandages and splints applied. On examining his thigh, I found there had been a simple fracture about mid-way, between the great trochanter and knee: the fractured ends of the bones were united, but the nature of the intervening substances was so flexible as to allow a great extent of motion, and the moving the limb was not attended with any uneasiness: he was unable to lift it from the pillow where it had been placed thirteen weeks before; during all which time he had been confined to his bed. After moving the limb rather roughly, I applied the eighteen tailed bandage and splints. I saw him again on the 6th, and then desired an assistant to grasp the upper part of his thigh very firmly, whilst I moved the lower with as much violence as I could for nearly a quarter of an hour; taking care, when I ceased, to place the ends of the bone in opposition, and re-apply the bandage and splints: he felt a trifling uneasiness after this, but not sufficient to give me any encouragement of succeeding with the present plan, which, however, I continued until the 13th without any better prospects.

Being foiled in my attempt, I determined to try the effects of getting my patient out of bed, and of making him walk about the village in the open air, thinking there would be no danger, provided the bones could be firmly secured: for this purpose a piece of wood was hollowed out so as to embrace the back part of his thigh and leg, reaching from the spine of the ilium to the bottom of his foot: there was a joint in the part opposite the ham which admitted of the leg being bent at any time, (particularly by night whilst in bed); a firm hollowed wood splint was applied in front, and the whole made secure by straps and buckles.

He was taken out of bed; but he felt so weak from long confinement as scarcely to be able to stand, and it was a day or two before I could get him out in the village by the help of crutches; and even then there was great difficulty in persuading him to lay sufficient stress on the injured leg, he being alarmed either at the novelty of the practice, or afraid some new accident would befal him; and it was not until after he was threatened with the probability of suffering some severe operation, perhaps the loss of his thigh, if this method did not succeed, that he put his foot to the ground with any degree of firmness:

by degrees he became more bold, and would occasionally lay the whole weight of his body on the injured leg: in this way he walked about for some time, but not without pain. I saw him again in a few days, and felt some satisfaction on hearing him complain of a good deal of pricking pains through the part; so much so, indeed, that the preceding night was almost a sleepless one: he was sensible also of a great increase of heat in his thigh, but nothing of the sort could be discovered by examining the surface.

From this time I discontinued moving his thigh, and in my subsequent visits contented myself with replacing the bandages and splints, and making them secure and tight: he got up every day, but did not attempt to put his foot to the ground; the muscles of his thigh and leg were kept in a relaxed position.

I often promised myself to examine the thigh, to ascertain whether the union was complete; but fearing too early a curiosity might defeat my object, I deferred it until the 23d of June, when, on removing the bandages, &c. I had the satisfaction to find the bone firmly united, and he was able to raise his leg and thigh from the bed without any assistance. After this he gradually recovered, and returned to his usual labour.

In the course of the next winter (20th February) he fell on some ice; and from an over anxiety to save his injured leg, unfortunately fell on it, and a second time broke it, just below the former fracture; but it got well in the usual time without any particular occurrence, and he still follows the occupation of a miner, notwithstanding a subsequent fracture of the patella of the same leg.

III.

On the Operation of Castration. By the Same.

The first time that I performed this operation, from the difficulty I found in separating the vas deferens from the parts to which it had closely united by pervious inflammation, I purposely included the whole spermatic chord in the ligature, and considered myself very fortunate that my patient did *not* complain of that exquisite pain which a ligature on the excretory duct of the testicle generally occasions. I was aware that the practice was not orthodox, and determined not to repeat it on any future occasion. In September 1812, I was consulted by Thomas L——, of St. Ives, on account of a disease of his right testicle, which had been enlarged for seventeen years past, but had never given him any pain until within a fortnight, when the integuments on the lower part of the scrotum

became slightly inflamed, and in a day or two ulcerated: a thin ichorous discharge oozed from the part, which excoriated wherever it touched; the ulcer continuing to spread, was making rapid strides towards the chord, it having already destroyed nearly half of the integuments. The tunica viginalis and albuginea were in a sloughing state, and in some places the body of the testis (which was the size of my fist) appeared: he complained of severe lancinating pains, and a sense of burning heat in the part. It was in this state when I first saw him, and after trying a poultice of conium for a day or two without producing any good effect, the immediate removal of the testicle was recommended, and the operation performed on the 5th in the usual way, the vas deferens not being included in the ligature. Within a day or two of three weeks from the operation (the ligature having separated, and the wound being quite healed) he returned home.

The left testis, which was also scirrhous, and nearly as large as the one removed, had been diseased about fourteen months; but was unattended with pain, and for some time the disease had been stationary. Very shortly after his return this was attacked in a similar manner; and from a small inflamed spot on the integuments, about the size of a sixpence, it increased in five days to an ulcer larger than a dollar: its hard and ragged edges being preceded by a wide purple margin, and its ravages were almost visible. The second operation was performed on the 5th of October following; and as soon as the chord was laid bare, a firm temporary ligature was passed under it, which, by being drawn up against the finger, acted as a tourniquet, and also prevented the action of the cremaster muscle until the vessels were secured. As soon as the chord was divided, and the spermatic artery and the one accompanying the vas deferens were taken up by the tenaculum, the ligature was withdrawn. The operation was soon finished, and in a few days the ligatures were thrown off, and the wound healed in little more than half of the time that the other did.

This mode of operating may be strongly recommended as an improvement: to the merit of originality I have not the least pretensions; the taking up the arteries exclusively in separate ligatures having been long since recommended by Desault, in France, and Gooch, in this country; although I believe the practice is far from being as general as it ought to be.

IV.

Cases of Hæmoptoe, in which Ruspini's Styptic was used, with Remarks. By J. Syer, Surgeon Apothecary, Atherstone, Warwickshire; and Author of "A Treatise on the Management of Infants."

Although the science of medicine comprehends the widest range of human knowledge, and has derived extraordinary advantages from the cultivation of physiology, and a more extended acquaintance with pathology; still it is to be regretted, that in a practical view it is so often involved in considerable obscurity and much uncertainty, that when a disease has long become painful and intractable, or, from its immediate violence, threatens our existence, recourse should be had to empirical remedies; anceps vel ignotum remedium, potiùs quam nullum. As far, however, as medicine is a tentative and experimental art, we may, in some measure, be justified in such resource; and the public have lately witnessed the extraordinary efficacy of several valuable remedies; amongst which we may class Ruspini's styptic, and the eau medicinale, the bases of which are totally unknown; but in some instances their deleterious effects have been too manifest to escape animadversion, and ought to put us on our guard how we pursue the adventure: it therefore appears to be the duty of every practitioner who properly regards the importance of his profession, and who has watched the effects of these remedies, when the result has been evidently unfavourable, to deliberate how far it may be prudent to persist in the experiment, when the primary benefit is often counterbalanced by irremediable mischief. In some instances, it must be acknowledged that we deal unfairly with empirical remedies; and from our readiness to trace the connection between cause and effect, (the most arduous and unprofitable of all researches,) we ascribe the mischief to medicine, when, in truth, the error rests with the constitution; as in the pretended baneful effects formerly imputed to the Portland powder, in the cure of gout, which is a mere combination of simple bitters. In this instance we contemplate a mere conversion of one disease into another; it being a well known fact, that the retrocession of gout often terminates in apoplexy, even where little or no medicine has been employed. The following instances, however, relate to the exhibition of Ruspini's styptic; and whether the unfavourable deduction I have drawn from its effects be correct or not, must be submitted to the candid and impartial critic. The success that attended it as a styptic was experienced, in both cases, in a very short period; but one of them, a phthisi-

cal patient, was carried off by violent spasms of the chest and diaphragm; and in the other, a very obstinate hemiplegia supervened. The powerful effects of the above styptic in hæmoptoe are so very conspicuous, as far as my experience on these and former occasions goes, that I should not hesitate to employ it where other remedies had failed: but it is the abuse of it, and the large doses of it, indefinitely continued, which I cannot but consider as a just ground of apprehension. I had an opportunity, in the first of the following cases, to witness the early operation of this remedy, although its action otherwise than as a styptic is nearly insensible, and to ascertain some of its deleterious effects; for to this source I think the spasmodic symptoms must clearly be referred, since there is no analogy or relation between spasm and phthisis, and in one of the cases the paroxysms recurred very soon after the repetition of the styptics. I know nothing but by report of the second case; but its authenticity is established on the testimony of a very respectable physician in this neighbourhood, who favoured me with a few of the most essential particulars. It is not necessary to go into a full detail of the case which fell under my own observation, it is only requisite to state the general plan of treatment, and the ultimate failure of such regular means as were deemed necessary by a physician of repute, who was consulted in conjunction with myself. In the middle of the month of April, 1817, a young woman, rather of tall stature, of dark hair and eyes, and rather delicate complexion and narrow chest, but of a full habit, exercising the functions of a nurse, having had scarcely any previous indisposition, was attacked with hæmoptoe. The only remote cause of it that could then be assigned, was, that she had been using immoderate exercise: it gave instant alarm, and she was soon let blood to the amount of ten or twelve ounces, was enjoined to maintain a horizontal posture, to abstain from any sort of animal food, and was directed to take liberal doses of nitrate of potash in a weak infusion of roses: her bowels were kept very open by frequent doses of sulphate of magnesia. As a troublesome cough soon supervened, with a very frequent wheezing, it was judged expedient to omit the infusion of roses, and substitute the almond emulsion as a vehicle for the nitre. Barley water, with gum arabic, was also liberally allowed. As an active medicine, she took small doses of the submuriate of mercury, with ipecacuanha, and extractum conii, at bed time, for several days, but apparently with little effect. The hæmorrhage recurred daily, generally in the morning and evening, in the first attack preceded by a troublesome cough, and the blood voided was highly florid. Some

inflammatory symptoms occurred, which were denoted principally by occasional heat in the chest, some degree of harshness on the pulse, and pain of the side, but the latter was not permanent. Suffice it to say, that it was necessary to have recourse to general and topical bleeding, and to keep the bowels very open for many days; and the hæmorrhage, though daily diminishing, still threatened future danger. The pilul. hydrargyri was at length substituted for the submuriate of mercury, combined with digitalis and extract. conii; and the demulcent and saline plan was continued. She was confined by this illness to her bed about a month or five weeks; the gums became affected through the mercury, and the catamenia appeared, which had the most decisive and favourable effects: the discharge was never considerable, but, by the advice of Dr. Palmer, it was encouraged by warm fomentations to the abdomen and exterior ligaments, and frequent pediluvia. The hæmoptoe very soon ceased, and very little expectoration of any sort ensued: she was very narrowly watched for several months, and the utmost care taken to prevent a return of the disease: all violent exercise was prohibited, and animal food given in the most sparing manner: in short, she subsisted principally on vegetable food.

In the month of August following, this patient had a very severe relapse of the hæmoptoe; and the bleeding, from the system, as our principal refuge, was carried necessarily to a greater extent. She voided, on several occasions, above half a pint of blood, unmixed with mucus, and the hæmorrhage usually was periodical, in the evening; several times it returned at a late hour in the night, requiring a free employment of the lancet. The hæmoptoe was not accompanied with any prevalent expectoration, or so slightly that it could hardly be detected; it was for the most part a thick sanious mucus. The patient, during this attack, experienced very few inflammatory symptoms, probably on account of the loss of blood from the hæmorrhage and the lancet, as well as leeches; but her debility and emaciation soon became obvious. Larger doses of digitalis were now exhibited: and the tincture of hyoscyamus, with decoct. hordei, alternately with larger doses of nitrate of potash, in the common emulsion, and an opiate was subjoined at night, as the cough became more troublesome: this was greatly dreaded by the patient, as it was mostly attended with more or less hæmorrhage. The hæmorrhage continued; but the debility increased so much, that both general and topical bleeding were no longer practicable. A liniment, with antimonium tartarizatum, was freely used upon the chest, and brought

out a copious eruption, but with no salutary effect. We then agreed to try the super acetas plumbi in the form of pills, in doses of two grains, (gradually increasing the dose,) with a grain of opium, and a similar dose of ipecacuanha every six hours. This powerful remedy was not long persevered in, as it seemed in nowise to diminish or prevent the hæmorrhage: at length, in consequence of the favourable report of Ruspini's styptic, in a desperate case of internal hæmorrhage, in the neighbourhood, I took upon myself the responsibility of employing it according to the printed directions, having witnessed its powerful effects in former instances. The first and every succeeding dose effectually put a stop to the hæmorrhage. A dessert spoonful of it was soon given every six hours, and afterwards two or three times a day, apparently with the happiest effect, for the space of ten or twelve days, when the patient was seized several times with very alarming spasms, chiefly affecting the diaphragm and chest, threatening suffocation, which continued several minutes, but at last gave way to the volatile alkali with æther. I was fearful of continuing the styptic, from this time, so frequently, and limited its repetition to a very small dessert spoonful twice and afterwards once a day. It was not, however, wholly discontinued, and the patient being much reduced, was now allowed chicken broth, light puddings, and milk, and to sit up a short time daily. Her friends, who lived at a distance of nearly thirty miles, still apprehending the utmost danger of her dissolution, (which was very obvious to every one who saw her) were solicitous for her removal, which was conducted with great care and tenderness; nor did the journey seem at first to affect her; but she had not arrived many days before the spasms returned with increased violence, and at length carried her off. What was truly singular in this case, was the slight cough which attended it throughout; and there being no sign of ulceration of the lungs, and but little proof of purulent expectoration, notwithstanding the breach of surface of the blood vessels, the hæmorrhage undoubtedly proceeding from vessels of considerable size. The patient was, therefore, not destroyed by any consequential symptoms characteristic of phthisis, though such might have been fairly anticipated, nor probably from simple debility, (although by some this might be supposed,) but apparently from the influence of the spasms, induced by the continuance of the styptic. Perhaps the following case will seem less equivocal. A lady, who had voided a considerable quantity of blood by the mouth for several months, and had tried every thing that medical skill could suggest, to no purpose, for a considerable period, was

at length prevailed on to try the celebrated styptic. Whether the hæmorrhage proceeded from the lungs or the stomach appeared doubtful; a good deal of pain was experienced about the superior part of the thorax, but a physician of high character thought it arose from the stomach, although one should imagine that a frequent inspection of the fœces would have decided it. The patient had but little cough, and the blood appeared generally florid, which is often regarded (perhaps with too little reason) as a criterion of its originating from the lungs. In this instance it was periodical, recurring mostly, according to her husband's account, (from whom I accidentally collected part of the narration,) about three o'clock in the morning; but the quantity lost was very great at different intervals, and of course was daily aggravating the patient's danger. The first dose of this remedy put a stop to the hæmorrhage, and every encouragement was felt to repeat it according to the directions. A tablespoonful was taken twice a day, night and morning, for a considerable time, until hemiplegia occurred, and some little time afterwards all loss of power of distinct speech. It deserves to be mentioned, however, that this last symptom had been experienced at a distant period before; but under what circumstances, and what was its duration, I have not learnt. The hemiplegia remaining, and the hæmorrhage having been suppressed for several weeks, it was judged right to omit the styptic altogether. Mr. Ruspini had the curiosity to visit this lady himself, being flattered by the success of his remedy, and countenanced this measure. But the hemiplegia has proved very obstinate, and is scarcely yet subdued. As I conceive this remedy, given with caution, to be highly valuable, and it having been tried with equal success as an external application to wounds, it is to be regretted that there should be any substantial reason to suspect its deleterious qualities. It need hardly be added, that it is far from my intention to impeach the judgment of those who had the management of the case, particularly as it was superintended by a skilful friend; and both parties perhaps felt justified in following the printed directions of Mr. Ruspini, without the smallest apprehension of danger, since he recommends it to be persisted in for a considerable time, and in the same dose; which appears extraordinary and unreasonable, as the medicine must certainly possess active powers, and, therefore, might easily be resorted to in cases of relapse. I ought to apologize for the imperfect sketch of this lady's complaint; but, from the termination of the former, the result appears strictly to support my belief, that the disease which followed the exhibition of this remedy was referrible to that source alone, and even these consequences to an unlimited use of the medicine.

P. S. In perusing a former Number of the Repository, I was struck with a singular passage in a paper of Mr. Chapman, in controversy with Mr. Ring, wherein Dr. Parry is stated to be the discoverer of a doctrine in pathology, certainly above forty years old, relative to the termination of inflammation in serous effusion. This doctrine was well-known and appreciated by the late Dr. Fordyce, at his lectures on dropsy. Indeed, it is substantiated by the observation of any intelligent practitioner as to what frequently happens previously to hydrothorax, viz. chronic inflammation of the thoracic viscera in those who have lived intemperately, as well as in the instances of hydrocephalus acutus, when frequently we may have observed symptoms of violent inflammation in the membranes of the brain. But the most singular passage in Dr. Parry's late work on the elements of pathology and therapeutics, is his strong doubt, whether an accumulation of fluid can ever be said to arise from diminished absorption. This author is so zealously alive to the exclusive agency of the vascular system, that he has appeared to overlook the functions of the absorbent and nervous systems altogether in the production of disease, particularly the phenomena of sympathy and metastasis, which, though still somewhat mysterious doctrines, Dr. Parry's theory does not sufficiently elucidate. These remarks are made without any view to the disparagement of the doctor's very ingenious account of inflammation, and its close connection with dropsy and hæmorrhage; for I verily believe that the work is calculated to throw very great light on the theory of medicine; and his practical remarks on the conversion and extension of disease, (the former of which subjects has been so ably handled by the late Dr. Ferriar,) are excellent. I see, however, very little difficulty in considering the probability of a state of atony of the lymphatics. All diseases consist in one part acting too much, and the others too little; and in proof of this I would beg to refer your readers to an excellent paper on the pathology of dropsy, by a quondam friend of mine, Dr. Nichol, whose description precisely points out the most accurate theory of that disease. But there is a fact which admits of no other explanation, in my idea, than want of power occasionally in the absorbents, where a large accumulation of fluid exists. Most of us must have experienced that the absorbents are found to act very powerfully after exciting considerable nausea, or even the operation of a vomit, whereby the force of the arterial system is relatively diminished, and that of the absorbents frequently increased. On this principle, depletion, by a course of purgatives, will be found to act; or even a single drastic cathartic has been known to exert so powerful an influence on the absorbent system

in ascites, as well as anasarca. As the ratio medendi is not, however, so obvious, in these cases, we ought, perhaps, to assume them as facts, rather than to argue from them as principle: indeed, throughout the whole course of medical science, facts or phenomena are more properly the foundation of our knowledge than the most ingenious hypothesis that we can devise; and happy and useful must he be to the profession at large, that can record facts with fidelity, without making nature previously submit to the ordeal of theory.

V.

Mr. Chapman's *Reply to the Remarks of* Mr. Ring, *which appeared in the May Number of the* Repository.

In my former reply to Mr. Ring, I had expected that the controversy between us would have terminated; the more especially as I had conceived that the arguments which I had adopted upon the occasion, would have carried conviction to his mind, both of the error of his opinion, and of the frivolity of the subject altogether.

The petulance and warmth which he has portrayed since the period of its perusal, have left me at liberty to infer, that in point of *conviction* it has far otherwise failed: but the exceeding fondness which this gentleman possesses for *typical exhibition*, perhaps co-operating with the circumstance of his being somewhat irritated, has rendered it impossible that he could remain silent; he has accordingly replied; but instead of adopting the *simply uncouth* style of his last communication, he has had recourse to a means of smothering his argument by the *uncalled for citation of misapplied quotations;* or where no argument at all could be adduced, *Sancho Pancha like,* he has settled the question by the adduction of a proverb. On a former occasion, I expressed a determination that I would make answer no longer to any remarks Mr. Ring might offer on a subject of so small importance, because I was aware that the determining a question as to a *priority of claim,* was by no means essential to medical improvement. I can discover no *reason* for deviating from such a resolution, because there is but little *reason* to be discovered in Mr. Ring's observations; and I shall, therefore, not touch again upon this question, but merely beg leave to refer the readers of this article to the Paper which I last published, in which I have separately examined the opinions of the authors he has quoted; and have concluded by stating, "that however they might have been aware of the fact, that serous effusions do occasionally occur, they were ignorant of the general principle, in conformity with which such effusions are produced."

Were it not that Mr. Ring appears to be awakened to the error which he has committed, I should recommend, that in order to his perfect satisfaction, he would *study* the " Pathology of Dr. Parry." I should recommend that he would again peruse the writings of Mr. Hunter on the subject of inflammation; that he would re-examine the other authorities which he has quoted; and by a proper comparison of the several opinions, he might possibly to his *vexation* deduce the inference, that *the knowledge of a subject is of essential moment to the successful termination of an argument.* I would, furthermore, tender to him this salutary advice, if he is really a friend to Mr. Hunter, and one of that numerous class, who make it their business to assert, that he was *omniscient* as a *physiologist*, or *infallible* in his *doctrine;* that he should be careful, lest in his eagerness to extol the individual in question, he should do the cause which he would advocate an injury, or leave it to be said, that, in the *folly* of *enthusiasm*, Mr. H. has suffered more from his friends than from his enemies.

Mr. Ring has felt himself so perfectly satisfied with my last communication, that he has said, " I had no intention of publishing any further opinions upon this subject;" but being *resolved* to publish *something*, he fancies that he has discovered, in the course of my " Observations upon Dropsy," some very *egregious errors* that I had adopted. At the commencement of my remarks upon this subject, which were published many months ago, I have said, that there was " one termination of inflammation, which, as it consisted in the *exudation of serum* or *coagulable lymph*, from the extremities of the arteries which were the subjects of the disease, might properly be termed *serous effusion.*" Readers who have been endowed with less of penetration than Mr. Ring, would have passed over this observation, without detecting in it any very egregious error: his *critical sagacity*, however, is not of that *ordinary stamp*, but that he is enabled to descry (to make use of his own expressive term,) " that I have stumbled." This circumstance is easily accounted for: there are few, perhaps, who are not sufficiently well informed to know that *serum* and *coagulable lymph* are synonymous terms, signifying the *same material:* but it is different with Mr. Ring; it is to be collected from his remark upon this particular, that he has been in the habit of considering them as different, and thus constituting a distinction which really has no existence. Whether or not Mr. Ring has been in the habit of confounding the very distinct terms *coagulable* and *coagulated*, or whether his mistake upon this head has resulted from his conceiving that *serum*, *coagulable* and *coagulated lymph* are distinct ingredients of the blood, he has not condescended to inform

us : but in either case it will not be otherwise than kind, to tender him the *information*, that as the fluid *serum* is *capable* of being *coagulated* by *heat* and *nitric acid*, it has obtained also the name *coagulable lymph:* he will, therefore, discover, on a second consideration of the above passage, that I have not myself " stumbled," but merely placed in *his* way a *stumbling block*, which *he* has not avoided.

It is somewhat remarkable, that Mr. Ring, who has not scrupled to deliver his opinion with such *seeming confidence* on the subject of " serous effusion," should subsequently evince so great a *want* of *knowledge* on the matter, as to be ignorant of the *nature* of the fluid which was effused ; but his " stumbling" in this place is evidently assignable to the haste with which he has replied, as a consequence of the anger resulting from his *conviction*. I have judged it necessary thus to observe upon this first remark of Mr. Ring, not with a view of giving information even to the junior portion of the readers of the REPOSITORY, or to efface the impression which must undoubtedly have been made upon the mind of every person by its perusal ; it has issued from a wish to demonstrate to Mr. Ring the necessity which there exists, first to ascertain that he is himself *correct*, and labouring under no *misconception* of the subject, before he shall again venture to intrude his *talent* for *scepticism* upon the observations of others.

Mr. Ring having thus woefully committed himself, goes on to remark, that, independent of this, there are other opinions which appear to *him* very *paradoxical* in my memoir. I have said, " there is a very necessary and important distinction to be made between what might properly be termed *simple excessive determination* and *inflammation*," the latter being by no means essentially necessary to the former. To establish this fact, I have asserted, that phenomena are hourly occurring without the least *deviation* from *the healthy state*, in which the quantity of blood determined to various parts will suffer a remarkably sudden and considerable augmentation. I have cited the example which is afforded in the act of *blushing*, in which the vessels of the face are turgidly distended, without *inflammation* of the *face:* the frequent determination of an undue quantity of blood to the vessels of the brain, from a variety of causes, but particularly from violent emotions of the mind, such as joy, anger, fear, I have also adduced. I have subsequently descended to conditions of disease, and have shown that preternatural determinations of blood will frequently take place to the brain, giving rise to a variety of symptoms, in the absence of phrenitis. Upon the same principle, I have remarked, that an undue afflux of blood shall take place to the lungs, by the

bronchial arteries occasioning dyspnea, without *pneumonia;* and yet Mr. Ring conceives that the distinction is *irrequisite* and *paradoxical*, and determines to oppose it. This is not so surprising a circumstance as it might at first appear; it is the characteristic of Mr. Ring to point out *differences* which do *not exist*, and to annihilate *distinctions* which are *self-evident* In the face of such *facts* as *these*, this gentleman is bold enough to deny that there exists a possibility for a preternatural quantum of blood being determined to a part, without the existence of inflammation; and when I have remarked, that as a consequence of such an affection in the head, I have noticed, from the violence with which the blood was determined to the head, a motion imparted to it of synchronous occurrence with the action of the heart, he considers this as a *clear case* of phrenitis, and says, "if this is not inflammation, it is difficult to conceive what is:" and yet in such cases there is neither delirium, nor, in fact, any one symptom of such disease. If Mr. Ring is determined to consider all cases of augmented circulation as inflammations, it is probable, that in the course of his practice he will meet with more cases of phrenitis, than will present themselves, in a given time, to the whole body of his medical brethren in the united kingdoms; since every pain in the head, whether arising from disordered stomach, or plethora, might fairly be assigned to an increase of circulation. I am not aware to what class the *diseases* might principally belong, which are *endemic* to the neighbourhood of Hanover Square; but in Bath it commonly happens, that *apoplexy*, *palsy*, *epilepsy*, *catalepsy*, and a variety of other diseases, are produced, and which are fairly traceable to augmented circulation in the vessels of the brain, *without* inflammation of that viscus. If any further proof shall be necessary to convince Mr. Ring of the necessity for the distinction, I will point out to him the power which is possessed by different medicines, of determining blood to different organs. Medicines which are termed diuretics, have the property of increasing the afflux of blood to the kidneys, *without* producing renal *inflammation.* Medicines which are termed sedatives and narcotics, augment the circulation of blood in the vessels of the brain, but *do not* necessarily *occasion inflammation* of the brain. Purgatives *determine*, in like manner, to the mucous membrane of the intestines, but *do not* necessarily produce *inflammation* of the bowels. If Mr. Ring is willing to believe that no distinction is at all requisite, he must necessarily suppose, that a man who is intoxicated is suffering from phrenitis; and yet how different are the states, upon a very superficial comparison! Does not calomel determine to the liver *without* necessarily producing hepatitis? But on this

subject I have done: if these arguments are not satisfactory as to the necessity of discriminating betwixt *simple excessive determination* and *inflammation*, all argument is useless. I now bring this matter to a conclusion, and presume to hope, that should Mr. Ring feel again inclined to elicit further observations upon this subject, he will inform us under what peculiar classification of disease he is enabled to consider the several operations of the mind, such as joy, anger, hope, fear, as conditions "deviating from the healthful state."

Such information I have solicited, because he has complained that I have considered these affections as *natural occurrences*, and not necessarily productive of *disease*. His argument relating to the woman who died *suddenly in the street*, is *unworthy* of refutation.

Bath.

VI.

A General View of the Diseases usually occurring in Boys during the Period between Infancy and Puberty, deduced from Observation of those in Christ's Hospital. By Henry Field, Member of the Society of Apothecaries, London, and Apothecary to Christ's Hospital.

(Continued from page 288, vol. ix.)

TABLE OF DISEASES.	1818. March.	1818. April.	1818. May.
1 Cynanche tonsillaris	3	1	3
2 ——— trachealis	....	1	....
3 Febris Synochus	1	2	2
4 —— Typhus mitior	....	1	....
5 —— Catarrhalis	....	3	2
6 Scarlatina Anginosa	....	....	1
7 Phthisis Pulmonaria	1	....	....
8 Tussis Catarrhalis	1	3	5
9 Pertussis	....	....	10
10 Nausea, Gastrodynia vel Diarrhœa	4	6	4
11 Cephalæa	1	....	2
12 Rheumatismus acutus	....	1	....
13 Odontalgia Catarrhalis	2	....	....
14 Otalgia	....	....	1
15 Variola post Vaccinationem	2	....	....
16 Icterus	....	1	....
17 Epilepsia Symptomatica	1	1	....
18 Urticaria	1	1	....
19 Prurigo mitis	....	....	3
20 Eruptio Herpetica	....	2	1
21 Gingivæ Fungosæ	....	1	....
Totals	17	24	34

Note.—In the last table of diseases, vol. ix. p. 288, the months are printed by mistake Sept. Oct. Nov. instead of Dec. Jan. and Feb.

The spring season has been, as usual, variable. The prevailing winds were between south and west, attended with frequent rains; in one instance so violent as to produce severe inundations. The month of March was rather cold; but April and May milder than those months have of late years usually been. Vegetation has been, nevertheless, very backward.

During the month of May the hooping cough attacked several of the boys. The number affected with it, in proportion to the whole school, is very small; and as no new case has occurred for the last three weeks, there is no reason to expect a further extension of the disease. It seems from the paucity of cases to be a legitimate conclusion, either that nearly all the boys have already undergone this disease, or that it is not attended with so high a degree of infection as many others are: the former of these alternatives is by no means probable; the latter, therefore, may be considered as approaching nearer the truth.

One of the boys, (R. S.) attacked with this disease, died; though I believe his death must be attributed to a very high degree of pneumonic inflammation, supervening in an early stage of it, rather than to the hooping cough itself. He was aged ten years and a half, of a fair complexion, and belonged to a family inclined to scrofula. His mother died of pulmonary phthisis, and he has a brother now labouring under glandular disease in the neck. During the first week or ten days of his being in the infirmary, no symptoms appeared but what are common in pertussis: at that time the hooping sound greatly subsided, but oppression in the chest and difficulty of breathing came on, with considerable increase of fever. Repeated bleedings, both general and topical, were employed, with blistering, saline antimonials, and the usual antiphlogistic regimen; but with no good effect. Suppuration evidently took place, followed with such a great degree of purulent expectoration, that probably not less than half a pint, of which the greater part appeared to be genuine pus, was discharged in the course of twenty-four hours, and that for several days prior to his death, which happened on the 6th of June, somewhat less than a month from the first attack.

Two other deaths took place among our boys in the month of March, though one of them, (B. N. R.) belonged to the former period, having been taken ill in January last, and inserted in the table for that month, under the title of febris mesenterica. He was removed by his friends into the country early in March, and died with them about two or three weeks after.

The other boy (T. F.) died on the 27th of March, of

pulmonary consumption. He was uncommonly small in size, and slight in form. He was admitted into the school only a few months prior to his last illness, and had been frequently in the infirmary for various indispositions, which were generally accompanied with some degree of cough, and difficulty of breathing.

The case of Croup, noticed in the month of April, was one of the most severe that I ever witnessed to have terminated in recovery. The difficulty in respiration was at one time so extreme, that suffocation appeared to be almost inevitable. The relief so quickly afforded by bleeding was truly gratifying; but it was obliged to be repeated, either generally or topically, by leeches, five or six times: a brisk emetic of tartarized antimony, given to the amount of two grains in divided doses, was, at a period of great oppression, attended with the best effect. The patient recovered very slowly, but is now perfectly well.

AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

LXII.

UNDER the head of "Observations on Prevailing Diseases" in the REPOSITORY for May, it is stated, that opium was given in lemon-juice, "in order that the soothing influence of the medicine might be obtained without its stupifying effects;" and it is there asked, "Does the experience of any of our readers serve to ratify this reputed effect of the vegetable acids upon the narcotic poisons?" In reply to which, I beg to say, that being led to the use of vegetable acid some time ago, in cases of phthisis pulmonalis, in consequence of a paper which I saw in the fifth volume of the Medical Transactions of the College of Physicians; and having occasion to use opium at the same time, which is generally very necessary to be given to allay the cough when very troublesome, and this often in the day, I was frequently surprised at its not producing that heaviness which is usually observed to follow when given alone, even in moderate doses: and although I have repeatedly given it combined in this way, and obtained its soothing effects, yet I never knew it to occasion stupor. And having had the charge of a Military Hospital at that time, a fair opportunity was afforded me of ascertaining whether it possessed this quality. I have frequently since that tried it in private practice, and uniformly with the same effect. I therefore should be inclined to think that the vegetable, and also the mineral acids, have some power over the stupifying properties of

opium; but with respect to their utility as a medicine in phthisis, I am perfectly of opinion with a respectable author, that their powers have been "greatly over-rated," and that they will "no more cure tuberculous phthisis, than they will cure scrofula, when affecting the sub-axillary or other subcutaneous lymphatic glands: but still I should say that they are often very useful, and that life has been prolonged, and suffering very much alleviated by them; indeed, far beyond what possibly could have been expected, the symptoms in many instances having been so much mitigated by their use, that the extent to which the disease had proceeded was not even suspected, nor would have been believed, had not an inspection of the body after death afforded the most convincing proof. In confirmation of which, I shall state a case that fell under my care, and many more might be mentioned, were it necessary, in which the effects of vegetable and mineral acids were very conspicuous:—

J. W. aged thirty-two, a private dragoon, and by trade a farrier, was left under my care on the 27th of June 1815, by a medical officer of his regiment, who stated that he had been ill ever since the 11th of March, when he was admitted into the hospital, with pains in his limbs which were considered to be rheumatism, but could not speak to his treatment from his not having been under his immediate care, and the hurry of a sudden and rapid march did not admit of his case being sent with him. He was then reduced to a mere skeleton, with most excruciating pains in his limbs, particularly the knees and shin bones; so much so, as to occasion him to perspire to such a degree, that the hair of his head was continually wet from it, giving it the appearance of having been dipped in water: his knees were swelled and immoveable, the left, to three times its natural size, and so very painful that he could not bear them to be touched. There was also a large swelling upon the right wrist, and an eruption upon the skin resembling the syphilitic ecthymata, particularly in the face, from which it was suspected that his disease was venereal; and upon inquiry, it was found that he had been in the hospital for five weeks with lues, and had only been discharged about three, when he was again admitted on the 11th of March, with violent pains in his limbs: his pulse was quick and feeble, tongue morbidly pale, appetite very bad, and bowels regular.

It is not intended here to enter into a detailed statement of the treatment of this case; but it may be right to observe, that on the 3d of March 1816, he was walking about, with no other complaint than a cough, which first attracted notice in January, and which, when very trouble-

some, was relieved by small doses of ipecacuanha and oxymel scillæ, given occasionally as an expectorant; and the acidum aceticum, or acid. sulph. dil. with opium, two or three times a day; under which he so much improved, that there was every appearance of his being able to proceed to join his regiment as soon as the weather would permit; and this improvement continued till the evening of the 1st of April, when, upon visiting the hospital, I found him ill with a fever, in consequence of his having taken cold, the weather having been remarkably bleak about that time. His breathing soon became very much affected; the morbid symptoms proceeded with very great rapidity, and on the morning of the 8th he died. On the 9th the body was opened, when, to my no small surprise, I found the left lung had been completely removed, with only a small quantity of water in its place; the right diseased throughout, and the other viscera in a very diseased state: but as the latter does not apply to the present question, they need not be noticed. It is only necessary to observe here, that up to the 1st of April he was quite in a convalescent state, with no other symptoms than a cough, and that peculiar whiteness of the tunica conjunctiva, observable in phthisical patients; eating sixteen ounces of the best white bread, four ounces of mutton, with the broth, eight ounces of potatoes, and tea for breakfast every day: and this he had regularly done from the 27th of November, upwards of four months, without any intermission. And I have no doubt, had not cold, or some other excitement, occasioned a fresh morbid action in the system, that he would have lived for some considerable time longer; for I have now a patient that has been affected with tuberculous phthisis for many years, is scarce ever without a cough, and has several times been seriously afflicted; and in this case the vegetable acid has been very generally used, it having been the principal ingredient in a domestic medicine of the family many years before I knew it. It is not my intention to enter into a physiological discussion upon the subject, thinking it quite sufficient to state the facts, and leave it for every one to form their own conclusions from them. But had not an inspection of the body after death removed all doubts, I should not have believed that life could have been supported under læsions of so extensive a nature, and particularly of such vital parts as the lungs: but that the non-naturals, as they are termed, should be almost perfectly enjoyed under such mutilation, surprised me much, for he used to walk about with all the cheerfulness imaginable, talking of obtaining leave, when he got to his regiment, to go to his native place, Cook's Town, county of Tyrone, in Ireland; and at one time I was quite disposed to think he

might be able to effect it. His case, as may naturally be supposed, excited a good deal of interest and attention; so much so, that a detailed statement of it was called for by the Director-general, and was, with another not less interesting, transmitted to the Board on the 3d of March, and a further statement after its termination. It therefore having been made a public document, is not liable to any alteration; and it can only be necessary further to observe, that previous to his taking the vegetable acid, the mineral (acid. sulph. dil.) had been used, and which was first ordered on the 16th of February; it was while under these medicines that his improvement was so conspicuous, though it is probable that the ipecacuanha and scilla might have in some degree contributed towards it, which were first ordered on the 31st of January, ten days previous to the acids: and I have frequently, since then, adopted a similar mode of treatment in the apostematous and tuberculous phthisis, with apparent advantage, the acid and opium having very generally mitigated the symptoms for which they were given, without any inconvenience arising from the stupifying properties of the latter. Is not the black drop a similar composition*?

LXIII.—*Case of Cynanche Trachealis.*

Some little time since I was desired to see H. P., a very athletic man, aged 20: at three o'clock, p. m. he complained of violent pain across the forehead, with troublesome dry cough; his pulse was natural; the vessels of the conjunctiva were distended with blood; he had taken some Epsom salts in the morning, which operated freely; he was formerly subject to epileptic fits, which had left him about five years. Fearing a recurrence of the fits, I ordered him to be bled; he fainted on losing twelve ounces, (which was not sizy on cooling); he took an antimonial bolus in the evening, with an emulsion with vin. ipecac. for his cough. When I called in the morning he was much better, and gone out. I desired to see him at six in the evening: when he came, he complained much of dry cough, a pain in his chest *about three inches down the sternum*, his pulse was not quickened: I ordered his antimonial bolus at bed time, increased the ipec. in his emulsion, and desired, if his cough or pain increased, to send for a blister, and apply it on the pained part, and to inhale the steam of hot water before he went to bed. The blister was sent for about nine o'clock, with a message that his cough had increased.

* The author is correct in supposing the black drop to be a combination of the vegetable acid and opium. — Edit.

At eleven o'clock I was informed his cough was incessant, and that he was insensible. I immediately went to him (although very unwell myself), and it was fortunate that I did, or I think his existence would have soon terminated. I found him labouring for breath, a constant effort to cough, with a desire or endeavour to wet his mouth with his tongue, and to spit out: he could answer no question, but pointed to the pain in the breast. He had not been able to use the Inhaler for his cough; his pulse was not at all affected: here was decided local inflammation of the trachea; and, as such, I treated it in the following way:—I immediately took about twenty-five ounces of blood from his arm; I took off the blister, applied four cupping glasses on the breast, by which ten ounces more blood were withdrawn, and replaced the blister: he was relieved by the bleedings so as to speak and describe his pain and distress, but still the efforts to cough continued. I then ordered him the following, to be taken *every hour*, to be put dry on his tongue, and washed down with warm barley water: he swallowed without difficulty.

℞ Calomel gr. ij.
Pulv. Antimonialis gr. j.
Sac. alb. gr. v. ft. pulv.

I saw him at nine in the morning; he had taken seven powders, and had five stools; his pain was much relieved; had slept twice or thrice for about half an hour each time; his cough came on by fits; his powders were to be continued; at eight p. m. much better, his cough nearly ceased; he had taken eight more powders; he says his mouth is sore; ordered the powders to be taken every two hours; at eleven the following morning, when I saw him, his complaint quite gone; he had slept nearly the whole night; had taken but two powders; that is, 17 in the whole, (34 gr. of calomel); his mouth very much affected by the mercury; his gums continued ulcerated nearly a week, but there were no remains of original disease.

PART II.

ANALYTICAL REVIEW.

I.

Medico Chirurgical Transactions.

[Continued from vol. ix. page 488.]

In resuming the analysis of this interesting volume, the paper which falls before us in succession, is a short one by Mr.

Astley Cooper, detailing three cases, in which the dilatation of the urethra in females was accomplished by the introduction of a piece of sponge, in the manner recommended by Mr. Thomas, so as to admit of the extraction of calculus by the introduction of forceps through the meatus. The following are the remarks with which this paper closes:

"In the adult it will only be necessary to introduce a piece of sponge for twenty-four hours, and a stone of large size may be extracted without any great irritation being excited by it; but in children the dilatation should be more gradual, as they suffer more from it, on account of their greater irritability. The retention of their urine whilst the sponge is in the urethra also occasions considerable irritation; and it will be proper to have a groove made in the side of the sponge, to allow of the gradual escape of the urine; or, as my friend Mr. C. Hutchinson suggested, a catheter might be placed in the centre of the sponge.

"A great advantage will result from this mode of operation, if it should be found that in the majority of cases the urine is retained after the extraction of the stone, as the great objection to the use of the gorget or knife in the operation in the female, is the loss of power of retention which follows it, leaving the patient offensive to herself and friends, and the subject of continued excoriation. It is true, Mr. Hey has suggested the introduction of a sponge into the vagina, in the hope, that by the constant application of the surfaces of the wound to each other, they might be made to unite; and when cutting instruments are employed, such a trial will be proper.

"Another advantage will be derived from this plan, viz. that it may be employed as soon as a small stone is discovered in the bladder, when it can be extracted with great ease, and at a time that a more dangerous, important, and painful operation would be hardly proposed."

Some Cases of Disease of the Heart, with Inquiry into their Nature and Causes. By J. H. James, Esq. *Surgeon to the Exeter Hospital.*

Cardiac affections are at length beginning to take their share with hepatic derangements, in the investigation of pathologists; and it may be, that the partiality to one particular organ, as lord of the ascendant, which is so apt unconsciously to seize hold of the mind, will, in no long time, come to transfer the seat of empire over diseases, from the abdomen to the chest. Certain it is, to speak without hyperbole or metaphor, that unless we employ much caution in regulating our views of diseased phenomena, we are exceedingly prone to slide into one exclusive system and set of doctrines, and to look too much to a single organ as the source of mischief; without taking into consideration all the complicated and con-

nected functions of organic and intellectual being. The scope and tenor of the paper now before us, we think calculated in some measure to dilate these contracted views of cardiac pathologists: and although many of the writer's assumptions and principles may be in some measure gratuitous, and far from well established, we certainly think it important to investigate the condition of the circulatory organs and powers, when inquiring into the origin of organic disease: and such investigation will, we are persuaded, often go to establish the fact, that the disordered state of the organ itself, discovered by dissection, is often only one of the links in the more extended chain of diseased production; and that the rest of the evil is in parts that have only a relative connection with this great source and medium of circulation. One of the reasons adduced by Mr. James for supposing morbid affections of the heart to be frequently consecutive rather than primary, is, that the *left ventricle* is more commonly enlarged than any of the other cavities, "which is precisely the one likely to be affected by changes in the minute vessels; while the left auricle, which belongs to the same side of the heart, is more exempt from alterations in structure than any other, which is the reverse of what we might expect, if the morbid state were idiopathic."

The three first cases which Mr. James adduces, are for the especial purpose of proving, that mechanical obstructions in the great blood vessels are often actually productive of organic disorders in the heart itself. The first of these, as it is a curious and instructive narrative, we shall extract, with the writer's remarks:—

"On the 31st of June 1812, I saw the subject of the following observation, for the first time. He was a lad, eighteen years of age; his name, John Day. He was admitted a patient of Saint Bartholomew's Hospital, on account of a strain in the arm, and at first complained of no other ailment. At the time I saw him he was in apparently a dying state; there was an extreme degree of restlessness, anxiety, and feebleness, and he was exceedingly emaciated. The pulse at the wrist frequent, but feeble; at the lower part of the abdomen, however, on merely placing the fingers on the surface, (which was not very distant from the vertebræ, on account of the emaciation) a strong, large pulsation could be felt: it certainly did not feel altogether like the heavy beat of an old aneurism; but yet it was so large and strong, when compared with the pulsations elsewhere, that it appeared very probable that it was one, and this I believe was the general opinion at the time.

"On the inside of the right knee there was a patch about twice the size of a crown piece, of a bright red colour; but the surface was not elevated; there was no secretion from it, and it occasioned no

pain. The state of the limb was in other respects very peculiar; it felt much colder to the touch than the other, and there was no pulsation in the arteries. This condition of the limb was supposed to be connected with the aneurism felt at the bottom of the abdomen.

" All I could learn of his previous history was, that his complaints had been of a very anomalous nature; but he was supposed to have had disease of his vascular system, not only from the pulsations in the abdomen, but from their general fulness and strength elsewhere in the arteries, as well as in the heart; the former being described as having a kind of incompressible firmness. The secretion of urine was much altered, being of the appearance of decoction of bark; and he had pain in his loins: besides this, he had considerable sickness and vomiting, which were referred to the affection of his kidneys.

" The following day, July 1st, he died, and his body was examined.

" The *Thorax* contained a very small quantity of fluid; the lungs appeared pretty healthy: on one part of the surface, however, there was a red blush, but no effusion of lymph or other trace of inflammation. The pericardium was rather thicker than usual, and in its cavity was contained a small quantity of reddish fluid.

" The heart was larger than natural, the cavities being considerably augmented in size; but the parietes were thinner than usual, particularly on the right side, and somewhat perhaps on the left. The muscular fibres were flabby. The cavity of the left ventricle was the most capacious. The valves of the aorta were covered with excrescences to a degree that must latterly have considerably impeded the exit of the blood; and also, by preventing them from performing their office properly, have occasioned regurgitation. There were several holes in the valves in the midst of these excrescences, which probably proceeded from ulceration; and beneath the valves there was a small sac formed containing pus, which projected into the right ventricle. There were a few specks of disease in the thoracic aorta, but there was no thickening, and it appeared, if any thing, smaller than common. In the abdomen it certainly appeared to be so, and so were the branches proceeding from it: and there was nothing in the slightest degree resembling an aneurismal tumor.

" The state of the right lower extremity led us to examine the artery on this side; and just below Poupart's ligament we found a plug of coagulum, which led to an excrescence, growing from the inner coat of the vessel, precisely similar to those found on the aortic valves. It also blocked up the profunda, so that no passage could be allowed through either of these vessels. They were, however, completely open to within a very short distance from this excrescence, where one or two small vessels were given off. The trunks of these two arteries, (the femoral and profunda) although, in common with others elsewhere, they were considerably smaller than usual, yet could hardly be considered as much contracted in particular.

" *Abdomen.* The stomach was of a dirty unhealthy hue, with a blush of dusky red about the cardia; the intestines appeared

unhealthy and rather turgid with blood; there was not, however, any appearance of disease distinctly marked. The liver was not much altered from its natural appearance. The spleen was turgid.

"The kidneys were larger, and much diseased.

"The head was opened, and a little serous effusion was found."

In this instance it would appear then, that the cardiac derangement was both idiopathic and sympathetic; in other words, that the obstructed circulation operated upon the organ as a cause of disease; to which disease there seemed, however, to have existed a constitutional predisposition. Both in this and the following case, which was characterized by similar features, there was a strength and apparent fulness of the pulsations, which "could not (it is well remarked) have proceeded from the stream of blood, but must have been caused by the increased impulse communicated to the surrounding parts from the difficulty of transmission through the trunks, or augmented *sécousse* of the arteries, as Bichat terms it." We have thought it proper to notice this particular, inasmuch as the kind of pulse alluded to is often regarded as an index of the strength of propelling or circulatory power, when, in point of fact, it is a mere indication of obstructed and laboured circulation, and is in no measure remediable by either depletory measures or sedative medicinals. It is frequently found, indeed, not many days before death, in cases both of "mechanical" and "functional" obstruction to the free and full exercise of the circulatory faculties.

The third case related by Mr. James, is one also of obvious obstruction in the circulation occasioning cardiac disease. Upon dissection, "the vena cava was found, through a considerable space, crammed full with a firm coagulum," which is conceived by the writer to have existed during life; "and from the lymph effused on the surface of the artery, as well as from the peculiar state of the vena cava, it is not improbable that there was diseased action of the vessels generally."

The fourth example is one in which "the carotids beat strongly and evidently, and the heart largely and forcibly," while the beats of the radial artery were scarcely perceptible. "Could this have been the case, says Mr. J., if there had been obstructions at the orifices of the heart? It was not owing to the reflux of venous blood in the jugular vein, for it was synchronous with the pulsations of the arteries elsewhere: it was likewise firm and arterial. Besides, there was a difference in the pulsation of several other arteries; those of the two wrists for example: and finally, if the obstruction had been originally seated in the heart, how did it happen that

the pulse was again restored (as proved to be the case) to a considerable degree of fulness?"

Another particular which Mr. J. dwells upon, in order to illustrate his principles of the consecutive disorder of the circulatory organ, is the manner in which the aortic valves are found to be deranged in their structure. "These valves, (he says) when ossified to such an extent as to afford obstruction to the exit of blood from the ventricle, are commonly found raised, and not parallel to the sides of the vessel, as might have been expected a priori, considering the current of blood flowing through them from an enlarged heart. This peculiarity (he adds) is difficult to explain; but one mode of doing so, would be to offer, as a solution of this phenomenon, obstruction situated at the extremity of the arterial system, the influence of the reflux determining their position." Another forcible argument in favour of the secondary nature of cardiac disease, is founded on the fact, that the calibre of the aorta is very frequently seen enlarged in cases of valvular ossification. "Now the obstruction (says Mr. J.) thus situated at the orifice of the ventricle, should, if it were the primary disease, by diminishing the stream of blood, have caused rather a diminution in the vessel." The contrary being the case, it is hence inferred, that the ossification, to which all would by some be attributed, is merely a result of disordered circulation and vascular dilatation.

The above, with other cases adduced by the writer of the article now under review, are recorded and commented on principally with a view to prove the frequency of cardiac dilatation, &c. from an over proportion of blood being thrown upon the heart, in consequence of primary derangement taking place in the distant and minute portions of the circulatory system: but the writer is desirous of proving further, that "the converse of this is true, namely, that diminution of calibre, and decrease of strength, occur where there is a less quantity of fluid, and less effort necessary to propel it:" and in order to establish this latter assumption, he relates two or three cases of diminution in the ventricular cavity, connected with states obviously preventive of the blood's reflux.

Upon the whole, we have been much gratified with a perusal of this paper: and although its author is, perhaps, rather disposed to stretch his positions out into too wide an embrace, and to overlook specific causes of organic disorganization, we think the paper contains hints and elements at least of a correct pathology, in reference to cardiac diseases; which, as well as hepatic, and other derangements of structure, are often mere sympathetic consequences of those very diseases they are conceived to originate. We ought not to pass over the men-

tion, though we have not either time or space to do more than mention, some very apposite remarks which the paper contains on the discrimination necessary to be observed between serous effusions, as the result of different states of arterial action, and those which occur where there is merely obstruction to the return of venous blood to the heart."—" In this last case" (Mr. J. says he believes) " it sometimes happens that the secreting vessels pour forth a more than usual quantity of fluid: but it also happens, that the swelling which takes place, is owing merely to the accumulation of the natural secretions, which can no longer be poured into the vascular system again, for want of room."

The laws which regulate the transmission and extravasated deposit of serous and other fluids from the circulating mass, appear to us to be still involved in a good deal of what is doubtful in premise, and false in inference: and we think that physiology and pathology may still be very profitably exercised in further investigations of these important points. Mr. Carlisle has well said in his recent lectures before the College of Surgeons, that since the discovery of the absorbents we have been too disposed supinely to attribute all obscure functions to their agency, to endow them with faculties and accuse them of faults, without due evidence of their being either possessed of one, or chargeable with the other.

Further Observations on the Ligatures of Arteries; to which is added, a Case of Popliteal Aneurism, attended with some unusual Circumstances. By William Lawrence, Esq. &c.&c.

Mr. Lawrence continues the plan of cutting off both ends of the ligatures close to the knot, in the manner detailed in the sixth volume of the Transactions; and he states, that the new mode, by diminishing irritation, and simplifying the process of dressing, very materially promotes the comfort of the patient, and the convenience of the surgeon, while (he says) it has not produced ill consequences, or any unpleasant effects, in the cases which have come under his own observation. Both in Mr. L——'s own practice, and in that of several of his friends, the plan has succeeded even in aneurismal operations; and the paper before us contains the result of Mr. W. Cumin's experience on the new method, in a letter to Mr. L., which we present to our readers:

" In my letter enclosing one of these ligatures, I stated that I had seen the practice followed with good success at the General Hospital, La Corderia, (the rope work) near Bilbao, in the autumn of the year 1813. It was first suggested, *as I understood*, to Mr. Henning, now a deputy-inspector of hospitals, by an hospital mate, (Mr. Hume) who had seen it practised by a naval surgeon, stationed somewhere

on the coast of British North America. The practice appeared peculiarly advantageous in the hospital near Bilbao, where the contagious gangrene was at that time making the most frightful havock, and where, of course, immediate union of divided parts was above all things to be most ardently desired. I never saw, nor, until the publication of Mr. Guthrie's book, did I ever hear of any bad effects following the use of short cut ligatures. Neither sinuses nor unmanageable sores, as far as my observation has gone, could in any instance be traced to it. I should be much inclined to pursue this mode of tying arteries in every case of operation, particularly since it has been followed by such encouraging results in your hands. At the same time, I beg to say, that my experience of this plan has been very limited. Nor would any thing have induced me to address you on this subject, if I had not wished to satisfy the doubts expressed in your paper respecting the fate of the ligature. When the cure proceeds favourably, a small pustule or very minute abscess makes its appearance on the line of the cicatrix, which soon after bursts, discharging a small circle of thread, which had formed the stricture on the artery. No doubt there may be cases, where the morsel of thread shall remain close to the vessel, without creating any disturbance whatever; just as musket balls, and other extraneous bodies, have done for years in multitudes of instances. But the process I have described is the most usual where the cure goes on well, and beyond all question the most satisfactory to the surgeon."

To this paper is appended the following case of popliteal aneurism, conceived, as will be seen, to have been a sarcomatous tumour:

" A middle aged man was received into Saint Bartholomew's Hospital, with a large tumor filling up the whole ham, and extending on both sides of the femur towards the front of the limb. It had begun behind; had existed for five months; had grown latterly with great rapidity, and manifestly increased during a few days, for which we had the opportunity of observing it in the hospital. It had a firm fleshy feel, being a little softer at one of its anterior protuberances than in other parts. It gave him great pain, though it was not tender on being handled; it had caused considerable œdema of the leg and foot, and had rendered the limb completely useless. The surgeons of the hospital, in consultation on this case, viewing it as a large and rapidly increasing fleshy tumor, determined that amputation of the limb was the only remedy that could be proposed. This I performed high up, having first plunged an abscess lancet into the softest part of the tumor to the whole depth of the blade, without giving issue to any fluid.

" I employed pressure in the groin, instead of the tourniquet; the use of that instrument being very unfavourable, where it is necessary to amputate in the middle of the thigh, and in a less degree in other amputations of this limb, by confining the muscles, and impeding their free retractions. This prevents us from sawing through the bone so high as we otherwise might do, and thus increases the chances of that very annoying occurrence, the protrusion and exfoliation of the bone.

"The examination of the amputated limb disclosed to us the very unexpected circumstance, that this tumor was a popliteal aneurism, containing an immense mass of firm bloody coagulum; not of that light brown laminated kind, which lines old aneurismal sacs, nor of the loose and soft texture that belongs to recently clotted blood. Hence, although the sac had been freely penetrated by the abscess lancet, no part of its contents escaped.

"The coats of the popliteal artery, and a continuation of them, such as aneurisms ordinarily exhibit, formed the back part of the sac; while the front and sides were made up of the thigh bone, the back of the knee-joint, and the neighbouring muscles. The fleshy and tendinous fibres of the vasti were exposed on clearing out the coagulum, which not only covered the back of the femur, but had also advanced on each side towards the front, so as nearly to have insulated the bone. The periosteum was removed at several points.

"The popliteal vein, stretched over the back of the tumor, was completely obliterated for some extent. The popliteal artery, similarly extended, was flattened for two or three inches, but quite pervious to the sac, as well as from it; both its openings into the bag presenting the usual appearances.

"When the patient was more closely questioned, after this examination of the limb, he stated, that the swelling had continued of a moderate size until five weeks previous to his admission into the hospital, when it suddenly enlarged, and that it had increased considerably from that time. The pulsation, which the tumor no doubt had possessed at an early period, had altogether escaped his notice.

"I conclude that the case had been originally a popliteal aneurism of the usual kind; that the sac had given way in front, so as to convert it from a circumscribed into a diffused aneurism, and thus to present to us the deceptive appearance of an immense sarcomatous tumor.

"Since this case happened, I have heard of two or three other somewhat similar instances.

"The very large quantity of coagulum, and the state of the thigh-bone, may create a doubt whether tying the femoral artery would have been a successful method of treating this case. However, had I suspected the nature of the affection, I should certainly have made the trial; and should have undertaken it with a confident expectation of success, grounded on experience of the efficacy and extent of those natural processes, by which such effusions are absorbed, and such cavities obliterated. I have stated the case, to put others on their guard; and shall be happy, if what I have said should in any instance prevent so serious a mutilation as that which my patient suffered."

A Case of Extra Uterine Fœtus contained in the Fallopian Tube, with some Observations. By George Langstaff, Esq.

"A healthy woman, thirty years of age, (a patient of my friend Mr. Snow, surgeon, Highgate,) was suddenly attacked on the 14th of April, 1817, with excruciating pain in the lower part of the abdomen

and right groin, succeeded by almost constant distressing vomiting, which continued sixteen hours, without the least mitigation, although a variety of remedies were employed. After the cessation of pain and vomiting, the patient became extremely restless and anxious; her pale countenance, and small quick pulse, denoted considerable internal mischief; and the most probable conjecture respecting the nature of the complaint was, that some large blood-vessel had been ruptured. The abdomen enlarged, and occasioned dyspnœa; the vital powers gradually yielded, and she expired forty-eight hours from the commencement of the attack."

Upon dissection, the uterus was found enlarged, and containing a decidua, but the os uteri was not closed; adhesions were found between the fimbriated part of the fallopian tube and the posterior surface of the peritonial covering of the uterus and the ovarium; which is very frequently, Mr. L. says, seen in Cyprians, and which he conceives to constitute the principal source of barrenness.

History of a Woman who bore a seven Months' Fœtus for seven Years, was delivered of it per Anum, and completely recovered. Communicated by Dr. Albers, of Bremen.

This was supposed to have been originally an extra uterine conception, and the fœtus to have been dislodged from the fallopian tube (in which it was probably contained) by a fall, and to which immediately succeeded symptoms denoting the cessation of fœtal life.

On the Formation of New Joints. By John Howship, Esq.

Mr. H. conceives, that in the formation of new joints, the ossific matter is deposited in the intestines of the cellular structure of the capsular ligament, and that this formation can seldom, if ever, take place where dislocation has been connected with rupture of the capsular ligament.

Observations on the Nature of some of the proximate Principles of the Urine; with a few Remarks upon the Means of preventing those Diseases, connected with a morbid State of that Fluid. By W. Prout, M. D.

Dr. P. is well known as an able chemist and physiologist. In the communication now before us he professedly confines his attention to the three principles in urine, the *urea*, the *saccharine matter*, and the *uric* or *lithic*, and "the other principles, and particularly the *phosphates* and *oxalic* acid are omitted, from the uncertainty which still hangs over their nature." After describing the method of obtaining urea, and giving the analysis of this substance, together with that of the sugar of urine, and lithic acid, he concludes this division of his paper by the following inferences: —

" 1. The atomic theory, or theory of definite proportions, holds good in all these instances; a circumstance which renders it probable, that this will afterwards be found to be the case in all substances capable of chrystallizing or forming chrystalline compounds, both in the vegetable and animal kingdoms.

" 2. The above compounds appear to be formed by the union of more simple compounds, as urea of carburetted hydrogen and nitrous oxide, lithic acid of cyanogen and water, &c. circumstances which render it almost certain that their artificial formation falls within the limits of common chemistry.

" 3. The remarkable relation found to subsist between urea and sugar, seems to explain in a very satisfactory manner the phenomena of diabetes, which may in fact be considered to consist in a depraved secretion of urea. Thus the weight of the atom of sugar *is just half* that of urea; the *absolute quantity of hydrogen* in a given weight of both, *is equal;* while the *absolute quantities* of carbon and oxygen in a given weight of sugar, are precisely *twice* those in urea.

" 4. Lithic acid is a substance quite distinct from urea in its composition; a fact which explains an observation I have often made, that an excess of urea generally accompanies the phosphoric diathesis, and not the lithic. I have several times seen urea so abundant in the urine of a person where the phosphoric diathesis prevailed, as to crystallize spontaneously without being concentrated by evaporation, on the addition of nitric acid."

The second section of the paper contains a few remarks on the remedies, preventive and corrective, of calculary formation. Dr. P. regrets that chemistry does not apply so satisfactorily to practice as could be wished, and is disposed to infer, that purgatives are the principal agents upon which much reliance can at present be placed in counteracting the tendency to lithic concretions.

II.

A Treatise which obtained the Prize on this Question, " What are the Symptoms which indicate or contraindicate bloodletting in Fevers, whether intermittent or continued, designated under the Terms putrid, or adynamic, malignant, or ataxic? proposed by the late Academical Society of Paris, for the Meeting of 1812. By J. Van Rotterdam, of Ghent. Translated from the French by J. Taylor, M. D. &c. &c. pp. 265.

Than the question of bloodletting in fevers, none can be advanced of greater or more perplexing interest; and any proposal to lessen the intricacies of this disputed point, coming from a respectable quarter, cannot fail to be listened to with more than ordinary attention. But the small volume now

before us prefers claims to public regard upon other grounds than those simply of the importance attached to the question at issue. The approbation of such a body as the Medico Academical Society of Paris, would be in itself no small recommendation to a medical treatise: the character, moreover, which such approbation implies, is considerably heightened by the information that it was awarded, in the present instance, at the expense of fourteen rejected Essays for the same honour: and we are happy to add our positive probatum to this comparative and superlative one bestowed by its French umpires. The present publication is, indeed, one of the best practical works that we have lately perused; and it is with unfeigned pleasure that we bring it forward to the notice of our readers. The immediate question is discussed with becoming dignity and candour, and the experience of the author in the treatment of fevers generally, is detailed with considerable clearness and effect. The pages of the work are, it must be admitted, too full of spasm, and reaction, and plethora, and putridity, and malignity, and such like phraseology, which is now, at least on this side of the water, rather antiquated, and has been changed for something a little more precise and perspicuous: but, as in the case of meritorious treatises on chemical science, issued just prior to the Lavoisierian reformation of nomenclature, the reader has only to give himself the trouble to *dephlogisticate* the terms that thus offensively occur, and all will be intelligible and instructive.

The general indications of bloodletting, in febrile affections, are instituted, according to the author before us, for one or other of the four following reasons: —

" 1. When the blood is carried in greater quantity, and by an irregular impulse, upon any essential part.

" 2. When there exists in any of those parts an increased excitement, an increased irritation, or, as Gaubius expresses himself, a crispation of the fibres, or any spasmodic affection in the arterial vessels, which might produce a greater or less degree of injury, and at length a disorganization of the part.

" 3. When the subject is young and robust, and when, in consequence of pre-existing plethora, from whatever cause, the sanguiferous system is surcharged with a mass of fluid, preventing the free circulation of the febrile impulse.

" 4. When the general reaction of the arterial system is too strong to admit a salutary critical discharge."

It follows, from the above enunciation of the author's views, that the effects of evacuation of blood in fever are susceptible of being registered under the following heads: 1. the reduction of inordinate vascular action; 2. The diminution of the

mass of blood; 3. The allaying of spasmodic contraction; and, 4. The diversion of the impulse of blood from essential organs. The state of the pulse is very generally considered as the principal guide in directing evacuations of blood in fever, whether such fever be accompanied with local congestions, or topical irritations; or whether the disorder be without any evident indications of these irregular actions: but the possible fallacy of this sign is strongly inculcated in the publication before us: it is the writer's aim to prove that much mischief is likely to arise in practice, from the physician drawing his indications, as to the necessity of bleeding, from the mere condition of the arterial movements: neither is increased heat a sufficient ground for vascular depletion, since this "may arise from a general spasmodic affection, or from a putrido-inflammatory irritation." The heat of fevers, we think, has not yet received a satisfactory explanation upon any principle hitherto developed respecting the precise nature of vital and animal functions: that it often exists without actual inflammation, or even congestion, is, we think, sufficiently evident; and if, in these cases, we attribute the effect in question to oscillatory or irregular motions in the vital fluid, we rather sever than untie the knot, since the question still presses upon us, What is the positive nature of these motions? It appears to us, that the Mediccal Societies of Paris, or any other bodies, convened for the purpose of improving pathological and medical science, might, with propriety, propose as a prize question, the mode of accounting for febrile heat; for the agitation of such question, even if it did not terminate in inferences which should be quite satisfactory, might serve to elicit ingenious speculation, and provoke useful inquiry. That the chemical and respiratory theory of animal temperature leaves unexplained the cause of increased heat in fever we think is pretty evident, since we often observe not only a topical, but a general augmentation of temperature in the last stages of low fever, when the oxydising process, which is going on in the lungs, must be proceeding with extreme slowness, in consequence of the universal weakness, as well as the enfeebled and interrupted respiration. But we are wandering wide of our mark, and must recollect that our present business is analysis, and not speculation.

Setting out, then, with the assumption, that neither an accelerated pulse, nor an increase of heat, is *in se*, and abstractedly, a sufficient warrant for venesection, and that they may even exist conjunctively, and yet the patient be in a condition to forbid evacuations of blood; it becomes necessary further to state what are, and what are not conditions in which the remedy in question may be had recourse to. The indications which call for blood-letting, have just been detailed from

the author. " The general symptoms and considerations which forbid it, are stated in the following manner: —

" Among the circumstances which forbid the employment of this remedy, the most prominent indisputably is, diminution of the strength. Lassitude, indolence, languor of the eyes, paleness of the countenance, trembling of the lower jaw, and of the hands, tinkling in the ears, deafness, diminution or blunting of the sensorial functions, sadness and depression of the spirits, vertigo, low delirium, &c. sufficiently point out prostration of the animal powers; and the more of these symptoms are met with together, the more is blood-letting to be avoided.

" Weakness of the circulating system is recognised by a pulse, little, obscure, feeble, and yielding easily to the impression of the finger; the respiration is frequent and hurried, sometimes noisy, and as if choking, the voice tremulous; the extremities, ears and nose cold; the features shrunk and disfigured.

" Finally, when the patient is affected with loathing, nausea, and vomiting; when he is seized with incontinence of urine and fœces, or when the evacuation of these matters is suppressed, there is no doubt that the natural functions are weakened, and consequently form a contra-indication to bleeding.

" However, whatever symptoms the prudent physician finds, whether of augmentation or diminution of the vital action, he will never omit to search for causes even remote from the disease before he decides for or against this powerful remedy: the necessity of this search becomes evident in all cases where the cause of the disease is of a debilitating nature: let us take for example the putrid synochus: although that fever, at its commencement, shows all the symptoms of a general augmentation of the vital powers, and the patient may be young and robust, notwithstanding, as the remote cause frequently consists in contagion of a sedative nature, we see the patient fall suddenly into a state of debility: it is besides well to remark here, that of all the recoveries from fever, that from this is the slowest, which proves how decidedly it attacks the vital principle, and how sparingly we should deal with the patient's blood."

We are well aware that some of the above rules will be thought to be tinctured with the common place notions of debility as the essence of fevers, and that the last caution will be in particular condemned as partaking of that unfounded apprehension which arises out of the conception of ab-origine malignancy in the type of some of these complaints; and, indeed, had we time or space, we might show how intimately connected some of the contraindications of blood-letting, such as " tinkling in the ears, deafness, diminution or blunting of the sensorial functions," &c. are with inflammatory and congestive conditions, both in the minute and larger blood-vessels, and how necessary it is to distinguish between oppressed and smothered, and diminished or exhausted powers, in drawing our practical inferences. We, nevertheless, are bold to sug-

gest, whether modern practice may not be rather too little apprehensive of the probable consequences of voluminous detractions of blood, especially in the advanced stages of some fevers, even when there are positive indications present of a local plenitude of vessels, beyond the measure of healthy proportions. Well would it be for student, practitioner, and patient, could these *pros* and *cons* be accurately marked down upon paper as prescriptive rules: but such can never be the case; and we can easily conceive of a physician leaving the rooms of two fever patients, with orders for blood-letting in the one, and the prohibition of it in the other, without being able, in either instance, satisfactorily to impart to a second person the why and the wherefore of his practice. So different is the science of living or organized, from inorganic matter.

Having mentioned the purposes for which blood-letting is had recourse to, and stated his sentiments on the contra-indications to the measure, Professor Van Rotterdam proceeds, in the third section of his work, to speak of the quantity, repetition, and period of blood-letting in fevers in general; and the following are his general remarks on this head: —

" I find that, in general, blood-letting is not practised so frequently, nor to such an extent at present as formerly: Sydenham, for instance, prescribed as an ordinary bleeding in violent acute rheumatism, forty ounces; and surely such a quantity would appear now-a-days too exorbitant: he himself even, more advanced in years and in experience, afterwards adopted a better method: and Cullen has since declared twenty ounces a sufficiently copious bleeding. Perhaps the habit of the day, good living, indolence, abuse in venery, &c. may have too much enervated the people of the present age, particularly in cities, to admit of the enormous evacuations borne by our ancestors.

" Previous to determining upon a second bleeding, the physician will have attentively studied and recognised the character of the disease, and then examined with equal care the state of the strength after the first evacuation. I say that he should have studied the character of the disease, for it is necessary that he should act very differently, for instance, in putrid, malignant, or intermittent fevers, and in inflammatory fevers, where it occurs that the patient, fallen into a fainting fit on the first bleeding, though very sparing, afterwards bears very well more copious evacuations.

" I lay it down then as a maxim, that if the disease is complicated; if, after the symptoms hitherto mentioned, it appears to partake of the inflammatory nature; if the patient has been relieved by the former bleeding; if the pulse remains good; if the symptoms of reaction or impetuous motion towards an important organ diminish, and yet that the symptoms which determined the first bleeding still persist to a certain degree, we may proceed to a second, but always with greater circumspection.

" If, on the contrary, the pulse becomes weak, if the strength sinks, we never ought to repeat the bleeding; and in all cases of the fevers before mentioned, it is proper that the physician should consult the pulse, even during the flow of blood, for the purpose of instantly assuring himself of its indication; for, if it becomes feeble and irregular, and the patient at the same time more afflicted, it is necessary immediately to stop the blood, because such symptoms hardly ever admit of abundant evacuations. I have a hundred times observed, that by a too copious depletion, the action which appeared exorbitant has sunk suddenly, and that the disease, from acute as it was, passed into the chronic state. Let the young practitioner, then, never lose sight of this principle, *that in many acute diseases, the healing art consists much more in a prudent observation of the progress of nature, and of her salutary powers*, (forces réactives) *than in a useless and dangerous prodigality of medicines;* for in every kind of acute fever, nature has need of a certain degree of reaction, as well as of a certain interval of time, to change or surmount the proximate cause of the disease; and that reaction, if well directed, is often, alone, equal to the cure. In these cases the physician may, and ought to confine himself to observation; but, by no means so, if the reaction is deficient, for, such febrile affections, Stholl judiciously observes, are never cured by their own efforts, (*leurs propres forces*). Nor yet should he so confine himself if nature departs from the salutary line, or if, which happens much more frequently, some morbid irritation, primary or secondary, or a morbid predisposition of some organs, disturbs her in her operations, and gives to her efforts a contrary and pernicious direction: it is then that she should never be abandoned to herself, and that she claims imperiously the assistance of art. To this purpose Friend makes the following reflection: ' Hippocrates,' says he, ' gives us the history of forty-two persons attacked by acute fevers; twenty-five of whom died: none of those who survived it were restored to health but by the means of some evacuation, which teaches us in what way nature opposes this sort of disease, and what line the wise physician should hold, who always conducts himself upon these salutary indications.' "

What has been hitherto advanced refers to blood-letting in fevers generally, but our author extends his inquiries more particularly into the requisites, first, of intermittent fevers; and secondly, those that are still named, in the continental schools, putrid, malignant, and ataxic fevers. And while thus particularizing, he takes occasion to investigate separately the exciting causes of these several morbid conditions, on which subject opinion is still unsettled. In the section which treats " of the nature and causes of marsh intermittent fever," a suggestion is introduced, first started by M. Van Aenvanck, formerly professor of chemistry at Louvaine, from some ingenious experiments instituted by him to ascertain the influence of cultivated land on the atmosphere, that argillaceous earth produces the exciting causes of paludal fevers by the absorption of the

oxygenous portion of the air. The reasons, however, which are adduced for the generation of fever from this source, do not accord with the facts of chemistry; since, as it is observed by the translator, the actual proportions of atmospheric constituents are never found to vary, and poisonous ingredients in air are always adventitious: several curious facts, however, are mentioned in support of the doctrine of argillaceous influence; and, as bearing upon the same point, the translator brings forward the circumstance of the second battalion of the 34th regiment being much affected with fever shortly after they arrived in the Peninsula, in the year 1809, and which he conceives may be attributed to the men dursting and wetting their flannel shirts, and also their trowsers, with pipe-clay; neither linen nor cotton shirts being used by them. None of the officers, it seems, were seized with the fever; and Dr. Taylor says, he had no reason to think it contagious. The regiment was taken off duty, the flannels were thrown aside, and the men sent to a large village at the foot of the mountain Arouche, two leagues distant: the whole corps was subjected to ablution with soap and water, and cotton or linen shirts substituted for flannel. No more cases of fever occurred; and in three weeks the battalion was again as fit to contend with the enemy, and suffer the fatigues and privations of a campaign, as any part of the victorious army. But we have been told, that immediately previous to the appearance of fever in the 34th regiment, the men had received a large sum of money; that they were all young and raw recruits, and that they plunged into habits of excess. Alkohol, therefore, we are disposed to think, had more to do than argilla in the production of the fever in question; which was, perhaps, however, partly induced by the unhealthy quality of the pipe-clay; and we think Dr. Taylor's hint worth attending to in reference to the presumed pernicious effects of this substance as used by our soldiers. Of the poison, however, which produces marsh or paludal fevers, we yet seem to know nothing beyond its effects. The same, indeed, may be said of the exciting causes of fever generally, when we go beyond the fact of variations in temperature as the source of the diseased state, all other sources, with respect to their precise nature and abstract qualities having hitherto eluded every research. Hence, the disputes which to this day exist, in reference both to their probable nature, and the area of their agency; and hence the nosological and "frightful" multiplication of classes and orders, and genera and species of fever. "As well," says an author whom we are to notice in the next article, "may we talk of a Jack, and a Tom fever, a hill and a dale fever, as push the distinctions in the way nosology has hitherto done, into specific varieties, from mere incidental dif-

ferences." Our opinion on the dogmas and doctrines of this last author we shall immediately have to announce: in the meantime, we subjoin the following sensible remarks on this head, from the author now before us:—

"We know from experience, that the putrid, ataxic, malignant, and many of the complicated intermittents, arise from causes generally similar, as putrid emanations, filth, contagion, endemic exhalations, &c.; but these same causes, exercising their influence on men of different constitutions, also affect them in a different manner, according to age, sex, the greater or less aptitude to contract disease, or from the particular disposition in which one or other of the organs, or system of organs, is found; whence the one may, rather than the other, yield to the morbific cause. The alterations thus produced, will be more or less destructive, according as the integrity of the functions of the system, or of the organ affected, may be more or less closely connected with the maintenance of the vital action; and, as each system has its peculiar organization, its particular mode of action, as well as a different degree of sensibility and irritability, the phenomena which it will develop, in the morbid state, will have, as in health, a character peculiar and relative to its structure, and to the energy of its vital properties. Hence, the remarkable difference which exists between the affections of the mucous, and those of the serous tissues; between those of the sanguiferous and nervous systems; between these last and those of the lymphatic system: if we add now, the different modifications, the complicated causes which supervene and are developed, and their greater or less activity, and also the weakly dispositions of the various organs, which exist so often, and under such various forms, we may easily conceive why, in one and the same epidemical season, and by the action of one and the same general cause, one person shall be affected with a simple putrid fever, another, more robust, by a putrid synochus, whilst a third, more weakly and sensible, shall be attacked with a malignant and low nervous fever, and we shall find sufficient reason for the immense multiplicity of symptoms, so varied, so singular, and sometimes so extraordinary."

But our limits warn us that it is time to conclude; and they will not permit us to do more, at present, than wind up the whole by the following abstract of the author's practical inferences: —

1. Intermittent fevers, in general, do not admit of bloodletting as a remedy for the fever itself; it is there only indicated by concomitant and accessory circumstances; and in those which arise from other causes than marsh miasms, bleeding may be more largely employed than in paludal intermittents.

2. There is no intermittent fever in which bleeding is more rarely admissible, than in the paludal quartan.

3. Bleeding may be used with more safety in intermittent

than in the putrid or nervous fevers; and in the nervous malignant fevers, which are announced by a considerable depression of the animal, vital, and natural powers, sanguinous evacuation is much more seldom necessary than in the putrid synochus.

4. Blood-letting should by no means be practised in that synochus for the fever itself; it is expedient only in the inflammatory stage, or the first days of the disease, when the febrile heat is very perceptible. Repeated bleedings in this fever are seldom necessary, nor should much be taken at once.

5. After the first bleeding in the putrid synochus, should the symptoms continue urgent, before we proceed to a second, soothing and revulsive remedies ought to be employed to moderate the inflammatory symptoms which subsist in any important organ.

6. In fevers purely nervous, the marked and frequent pulse is a sign of the complication of phlegmasia with putridity.

7. In the ataxic or malignant fevers, the measure of blood-letting is determined by the condition of the local affections of vital organs, more especially the lungs, which are so often affected in such fevers; and we ought, *cæteris paribus*, to bleed more boldly when the eyes are inflamed, than when they are exempt from it, and that although other signs may indicate affection of the head.

8. The symptoms which indicate a repetition of blood-letting, should be taken principally from the dread of an impending metastasis to a vital part; also, from the vibrating and full state of the pulse, when the strength is not greatly exhausted.

9. When the symptoms increase, or others more serious supervene during the progress of a fever, there is often reason to expect a critical discharge; consequently, we ought to be cautious, especially in the low nervous fever, in resorting to bleeding. Nasal hæmorrhage is frequent in the putrid synochus, and even in nervous fevers, and proves salutary or critical in young subjects of a sanguine temperament and full habit: so does it also in cases of suppression of natural or habitual evacuations. It is, on the contrary, fearful when it occurs at the commencement of diseases of debility, or when it supervenes in advanced stages of disease accompanied with insensibility, a creeping pulse, convulsions, and petechiæ, or other symptoms of exhaustion of the vital principle.

10. Intermittent fevers, which appear in the spring of the year, are usually accompanied with inflammation of some one organ or other; and in relapses, which are occasioned by an epidemical influence, bleeding is essentially required: and it is no less necessary when the suppression of an habitual evacu-

ation, or the sickly disposition of an important organ, complicates the proximate cause.

In closing our analysis of this little volume, we should be happy to compliment, were it in our power to do so, the exertions of the individual to whom it owes its English dress. Dr. Taylor shines brighter in original colours than he does in reflected hues. The preface to his translation is written with an able pen; but the translation itself is so disfigured by Gallicisms, involved obscure sentences, and as it appears to us, in many parts actual misconceptions of the author's meaning, that the awarding it praise would be to permit that our good wishes should make us forgetful of our censorial duties.

III.

Results of an Investigation respecting Epidemic and Pestilential Diseases; including Researches in the Levant concerning the Plague. By CHARLES MACLEAN, M. D., Lecturer on Diseases of Hot Climates to the Honourable East India Company. In two volumes. pp. 492 and 524. 1817-18. Underwood.

CONTAGION, blood-letting, nosology, and other orthodox articles in medicine, all derided with as little ceremony as Dr. Ferrier treats the vulgar belief in apparitions! all, indeed, denounced as absolute and mischievous absurdities. Now, even to notice a book, which has for the burden of its song, doctrines and tenets like these, may be considered by some of our brethren as, at best, but loss of time and labour: by many it will be thought, that a fabrication, built upon such a foundation, and manufactured of such materials, must inevitably, like the *vis consile expers* of the poet, soon tumble down about the fabricator's ears, *mole suâ*, and without any assistance from the demolishing weapons of criticism.

Dr. Maclean, however, is too able and entertaining a writer to be treated with contumely and scorn; and beside, we are not quite sure, whether what we conceive to be his errors, are not errors, so to say, of extravagance rather than of principle. That contagion has been too extensively conceived; that blood-letting has been often mischievously used, and that nosology has much to answer for on the score of absurdity, we would concede to the author before us: but when he proposes to go the lengths which have just been announced, we hesitate not in refusing to be the companions of his headstrong and dangerous career.

The very extraordinary volumes now before us, are ushered in by a preliminary dissertation, constituting part the first, and

extended to 144 pages, consisting of a general statement of the grounds upon which the author has been led to differ so essentially from his contemporaries, both in the rationale and treatment of epidemic and pestilential diseases. As this discourse is merely formed of introductory matter, afterwards repeated still more in detail, we shall not trouble our readers with any analysis of it, but shall proceed to extract the following concluding paragraphs from the first section of part the second, which will at once serve to exhibit both the principles of Dr. Maclean, and the manner in which such principles are propounded and maintained.

" Epidemic or pestilential diseases are such as affect many persons at the same time, being produced mainly by an exciting power, the air, of the most diffusive operation.

" Epidemic diseases, then, in their utmost latitude of acceptation, may be defined to be, such deviations from health as depend upon the undue action of the atmosphere, comprehending all the intermediate degrees of affection between the slightest catarrh, and the most destructive pestilence.

" Towards producing an epidemic, or pestilential disease, to the diminished exciting power of the atmosphere are always superadded, in their various combinations and degrees, the influence of heat and moisture, soil and situation, food and water, corporeal labour, the passions and emotions of the mind, *and in Christian communities, the consequences of the belief in contagion.*

" It cannot fail to be regarded as extraordinary, that, of all the powers which are, or can be applied to the living body, that to which, for the last 270 years, they have been usually attributed, is the sole agent, which cannot possibly concur to produce, or to aggravate an epidemic.

" The effects of the action, in its different degrees and modifications of a power of diffusive and constant operation, which is the appropriate stimulus of the grand organ of respiration, and by which all the external parts of the body are perpetually pressed and enveloped, must necessarily be infinitely various. It is directly, or indirectly, the source of a great proportion of all the maladies which afflict mankind. Its slighter consequences, which would not of themselves prove dangerous, frequently become the foundation of diseases which prove mortal: those which already exist, it aggravates; and renders some fatal which would otherwise terminate in recovery.

" The vicissitudes of the atmosphere are a principal cause of consumption, which is so fatal in England, as to be considered a national malady. This disease, which is also common in Constantinople, and throughout the Levant, is there supposed, amongst Christians, to be contagious, and by some dreaded nearly as much as the plague itself. This well known cause has, of late years, I am very strongly of opinion, obtained a powerful ally in the almost universal misapplication of mercury, by which consumption is rendered more frequent, severe, and mortal, and slighter diseases often converted into consumption.

"*Popular tradition, then, seems justified, in regarding common colds as the foundation of almost all the ailments of mankind; and the great father of physic, in considering the air as the cause of almost every malady.*

"The yellow fever of the West Indies, and of America, the fevers of Bengal, Batavia, Bencoolen, Bulam, Cadiz, Gibraltar, Andalusia, Malta, Walcheren, and Leghorn, &c. &c. &c., (for so the epidemics, which have occurred at these places, have been most improperly denominated,) as well as every variety of remittent and intermittent fever, which will all be found to be only modifications of one and the same disease, produced by modifications of the same cause, and yielding to modifications of the same remedies, shall, with minor epidemic affections, be only occasionally treated of in the way of illustration.

"I may here observe, that the appellations, from local circumstances or particular symptoms, which these and other fevers have obtained, as if they were diseases differing in their nature, are as unscientific and absurd, as if the febrile affections of different individuals, from their varying in symptoms and degree, should be distinguished by the proper names of the persons who are labouring under them, as a 'John Fever,' a 'Tom Fever,' a 'Bill Fever,' &c. Thus, in India there is a 'Hill Fever,' from its occurring in the mountains; and a 'Jungle Fever,' from its occurring in the woods; and, in England, a 'Fen Fever,' from its occurring in the marshes: and this nomenclature we often find formally employed in medical dissertations! With equal propriety might we speak of a 'River Fever,' and a 'Plain Fever,' a 'Sea Fever' and a 'Land Fever,' a 'Night Fever' and a 'Day Fever,' a 'Dinner Fever' and a 'Supper Fever,' cum multis aliis."

It may first be permitted us to remark, before we proceed, that the thus naming diseases from their exciting sources, to which Dr. M. so vehemently objects, is an act rather of necessity than fancy or choice; and it is an admissible and legitimate mode of distinguishing the various shades of morbid affections, provided we always take into account that the several varieties are not as it were so many abstract essences, but that they are modified by, and dependent upon, the conjunctive influence of external circumstances and interior conditions. Since the morbid phenomena produced by marsh miasmata, or, if Dr. Maclean and Dr. Brown will have it so, by the cold and damp of marshy situations, are confessedly different from other pestilences, (we mean different in external characters,) how can they better be distinguished from these others than by giving them the general appellation of marsh fever?

To some of the conceits of nosologists we profess ourselves quite as unfriendly as Dr. Maclean, and other violent oppugners of morbid classification; but there is a cant in opposition as well as in other things, and dogmatic condemnation is calculated to be destructive of its own design.

In the table of contents to the second chapter of the work

under review, we meet with the two following aphoristic enunciations: "a disease commencing in contagion* is never in its course propagated by other means; and a disease in its commencement produced by other means, never in its progress becomes contagious." Now, it is the latter of these assumptions which we are bold to question, however syllogistic and specious it may appear, especially when placed, as our author has ingeniously done it, in connection with the former. In the fever, for example, which has recently prevailed in this metropolis, and which, with an evidence too forcible to be denied, had an *ab-origine* dependence upon some unknown state of the atmosphere, we have seen instances substantiated, almost with the same degree of evidence, of actual communication of the malady from one to another individual. That it should run in families, Dr. Maclean will say, is only proof that the *malaria* from which it originated prevailed in the house or apartment in which two or more individuals might be affected at the same time, or in succession: but it is not those who casually expose themselves to this atmosphere; it is not the mere visiters or hired attendants, that are obnoxious to the influence of the disease creating power; but those become infected, who are intimately and anxiously about the person of the sick, and who receive into their lungs the exhalations from his lungs. Indeed, in our minds the question was brought to a very satisfactory test, but to a very melancholy issue, by the frequently cited circumstance which happened some years since in the Edinburgh infirmary. It will be recollected, that a number of students of medicine in Edinburgh, purposely exposed themselves to near communication and actual contact with the fever patients in the infirmary, in order to evince the impossibility of fever being taken as a contagious disease; and the consequence of this bold experiment was, that many became affected, and some even died of the complaint they thus imprudently brought upon themselves. The anticontagionists still, however, reply to these allegations by stating, that we do not hear that there were any instances of these gentlemen communicating their diseases to their friends or fellow students, inasmuch as such friends, in their visits to the sick, were exposed simply to the disorder, not to the air of the hospital. But in answer to this last assumption the rejoinder is obvious, and to us sufficiently convincing, that none of the students sickened with fever who were exposed merely to this hospital air, although these last were in such air as long and as often as those others, who,

* It may be necessary to apprize the reader, that our author does admit of the specific contagions, as they have been called, such as the poison of small-pox and measles.—Rev.

with sceptical temerity, approached, and handled, and came in contact with the persons of the sick. It must be recollected, too, that these hospital patients themselves were not taken ill in the infirmary, but were conveyed thither with the disease upon them; so that allowing the air of the wards to have been infectious, such infectious properties were given to it by the diseased: but Dr. Maclean denies the power of fever to do this, and maintains, that infection always comes from something in the atmosphere, independent on the exhalations or secretions from morbid bodies. "A contagious atmosphere, or an atmospheric contagion, is (he says) nonsense." With respect to the exception taken to the principle of infectious being also contagious diseases, from the allegation that the latter only affect a person once in his life; this, of course, is a question entirely of fact, and there is no *à priori* reason for presuming, that because one or more contagious maladies are amenable to this law, it is the same with the whole class. Divesting ourselves then, as it is our desire to do, of every preconception, and of every partiality, we are compelled to repeat the conviction which, on a previous occasion, we announced, that although infectious fevers, even of the most malignant kind, have not any thing like the contagious properties, or the powers of reproduction and extension which is awarded to them by some; they still have such powers to a certain extent, and when they are acting under such circumstances as are calculated to foster contagious influence.

In his third and fourth chapters Dr. Maclean aims at proving, from historical records, that the notion of receiving diseases by communication and contact with the sick, is of modern origin; and that the doctrine of contagion, in pestilential diseases, was invented by Pope Paul III., in the year 1547, in order to strike panic among the fathers of the Trent Council, and to serve as a pretext for translating that council to Bologna. Were this even true, could it be proved that the ancient philosophers and physicians had no conception of contagious communication, the facts might, nevertheless, still exist. But it is not true, that in ancient philosophy and medicine, contagion was never thought of; nay, in the very work of Dr. Mead, to which Dr. Maclean so often refers, are to be found documents of evidence, sufficiently numerous and powerful to establish the opposite assumption; and which Dr. Maclean, when professing to give the history of opinions on the point in dispute, ought, in all fairness, to have quoted. What, for instance, can be stronger than the expressions which are made use of by Thucydides, when describing the circumstances of the Athenian plague, he speaks of ἕτερος ἀφ' ἑτέρου θεραπείας, &c. Lucretius also talks in the same strain;

and what, as Dr. Mead justly observes, is of still more importance, Galen expresses himself on this head in the following words: *ὁτι συνδιαλρίβειν τοις λοιμώτλουσιν ἐπισφαλὲς, ἀπολαυσαι γὰρ κινδυνος.* The passage of Livy, too, in the 26th chapter of his 25th book, is generally acknowledged to bear pretty strongly on the subject of contagion: all of which authorities, Dr. Maclean forbears to attempt the explanation of.

So far, then, it will be seen, that we refuse our assent both to the premises and inferences of Dr. Maclean. On a former occasion it will be recollected*, that we endeavoured to express our sentiments on the difference between the contagion of fever, admitting its existence, and the real or specific contagions, as they have been named; and it was then stated, that the want of correspondence between the two was, probably, rather in grade than in essence: if this be the case, there are, probably, descending series of degrees in the scale; and may not plague and typhus hold about a midway station between small-pox on the one hand, and yellow fever on the other? Or might we not, in other words, state that small-pox will freely diffuse itself among individuals without any assistance from atmospheric influences? that plague and typhus suppose an epidemic constitution of the air, to make them thus so extensively communicable, as to be prevalent? and that yellow fever requires that the air be not only naturally, but artificially deteriorated, in order that the disease become thus general? These suggestions may, or may not be correct: if, however, it be once established, (and would, we think, on this head, the evidence is nearly conclusive,) that a certain state of the air, whether natural or artificial, is necessary to the spread of infection, it follows that the apprehensions which are entertained of transporting it from one part of the world to another, are conceived upon a false notion, as to its nature and properties. We are aware of the multitude of statements that have been made respecting the origin of plague from certain points, and that its source has been traced to the possession, by individuals, of infected goods; but we are disposed to dispute the validity of these allegations, and to attribute them to that desire, which is always discoverable, to refer particular effects to particular causes. One of the principal facts in favour of the inference, that the seeds of an infectious disorder are thus sown, and made to propagate in particular spots, is the curious circumstance, that the consequent distempers will often prevail for a time with very limited locality. Thus the plague of London, in 1664, was at one time wholly

* See our Review of Dr. Veitch, vol. ix. page 488.

confined to St. Giles's; it was then more prevalent in the city; subsequently Southwark was the point of its attack; and afterwards Westminster. Now, were the disease atmospheric, it is alleged, nothing of this kind would be observed. Certain, however, it is, that a something shall impregnate the air at particular spots, and that the poison thus infused shall be confined to that spot, and not diffuse itself to contiguous situations, as in the case of the *malaria* of Italy, where even a single house shall be sometimes set apart for the operation of the destroying angel; other buildings in the immediate vicinity being passed over untouched. Unless, then, this constitution of the air could be imported in ships coming from places where an epidemic disease prevails, it is extremely questionable whether such disease can ever be made to become general, by an importation of its virus: and we do in fact see, that commercial nations, which have no quarantine restrictions whatever, are equally exempt from the distempers of other climates with those that have. It is further questionable, whether contagion, were it transportable in the way that quarantine regulations suppose, could be prevented from insinuating itself into distant countries, by the most careful observance of preventive measures. Did small-pox rage in the Levant, and had the north of Europe never been visited by this pestilence; can we imagine, that since the facility has been established of communication between the East and the North, any precautionary contrivance of man would be sufficient to prevent its visit to our part of the world?

We are, then, it will be inferred, of opinion with Dr. Maclean, Dr. Adams, and other anti-contagionists, that there would be no danger in liberating commercial intercourse from these restrictive impositions, which, indeed, to be of any avail, ought, even upon the principles upon which they are established, to be of universal adoption; which it is well known is not the case.

With respect to the origin of epidemic diseases, we are still much in the dark. Dr. Maclean attributes the comparative infrequency of these distempers in the North of Europe in our days to the circumstance, that "the nations of the north generally have been advancing in cultivation, while those of the Levant have been retrograding: some of them, however, have either been stationary, or made less progress than others; and, accordingly, we find the provinces of Spain, some parts of Italy, the old Venetian provinces of Dalmatia, Istria, &c. many parts of Poland, and the eastern frontiers of the Austrian dominions, as Hungary and Transylvania, little less liable to epidemic diseases than formerly;

not because they are adjacent to Turkey, as has been inferred in conformity with the belief in contagion, but because they are in so backward a state of cultivation." This statement, however, is not explicative of the whole difficulty: it does not account for the periodical visits of certain epidemic distempers at certain parts of the world, nor does it explain the circumstance of the external varieties which the engendered diseases assume from their locality.

But we must bring our remarks to a close. It is our intention again to take up the question of epidemic and pestilential diseases, when we shall give a general review of the progress of medicine for the past year. Our design, in the present instance, was rather to have been analytical than critical. Dr. Maclean, however, although confessedly an interesting writer, is so diffuse, and abounds so much in repetitions, that it is not easy to follow the train of his arguments in regular course; and had we succeeded in our attempts to abridge the contents of each of his chapters, (which, in the general way, it will be our desire to do as analytical reviewers,) we should have found, it is to be feared, upon reviewing ourselves, that much unnecessary ground had been gone over. We should, however, do injustice both to our own feelings, and to the merits of the work, were we not to confess, that with all its diffuseness and extravagance, we found ourselves exceedingly interested in its perusal; so much so, indeed, that having commenced the second volume in the evening, we desired the morning light for its continuance, with something like the same feeling that we recollect to have actuated us in our days of youth and novel reading.

It is indeed the second volume which is particularly interesting, as a narrative of facts. This volume contains a detailed account of the author's researches in the Levant, for the purpose of establishing his postulatum that the plague is not contagious; and no one surely can question the sincerity of his opinion, when it is shown how much he risked upon the supposition that the distemper is of a contagious nature. Many, however, will be disposed to consider the circumstance of his having himself become the subject of plague as a curious particular to be brought in evidence against its contagious quality; *εκ τοῦ στόματός σου κρινῶ σε*, would some be disposed to exclaim; and for ourselves we cannot help thinking, that even under the same circumstances of bodily and mental exertion, and with precisely similar conditions of the atmosphere, our adventurous experimenter would not have been so likely to have fallen with the plague, had even such exposure been made, such privations endured, and such exertions maintained, provided the air alone had been infectious,

and there had been no near communication or contact with the sick. Neither, in our minds, are the deaths of Dr. Whyte, Dr. Nalli, and Mr. Von Rosenfeldt, satisfactorily to be traced to any other source than that of contagion, however ingenious and however plausible some of the arguments of Dr. M—— may be for the purpose of establishing the contrary assumption.

Upon the whole, then, we would repeat it as our sincere and unbiassed opinion, that the author before us has adduced facts of an incontrovertible nature against the notion of the transportable nature of plague; but he has failed to make good his main position, that the disorder is absolutely, and under any circumstances, incommunicable as a contagious distemper.

We have not left ourselves space, and therefore must defer till our annual review of medicine, the brief notice it was our intention to have taken of Dr. Maclean's theoretical principles and practical deductions as to disease generally. Some of our readers will indeed be inclined to think, that even to canvass the rectitude of his assumptions would be altogether unnecessary, when such readers are informed, that almost the only error which Dr. Maclean has been able to discover in the theory of the celebrated John Brown, is, that this last author admits there are diseases of increased excitement, and argues for the occasional necessity of depletion! To abstract a particle of blood from the human body, under any circumstances whatever, is, in Dr. Maclean's opinion, to commit an egregious error!

CORRESPONDENCE WITH THE REVIEWING DEPARTMENT.

To the Editor of the London Medical Repository.

"For satire's smile is sharper than her frown."

"Sir,—In your last Number of the Medical Repository are some very apposite, though not novel, remarks on the distinction between the terms endemic and epidemic; and upon that which some authors have attempted to institute between contagious and infectious disorders. The latter distinction I am disposed to think will never attain general adoption; both because, as you well remark, it hinges on a difference rather in degree than in kind; and because the same disease may be contagious in one instance, and what has been deemed only infectious in another, according to existing circumstances. At least there appears to me so much difficulty in many cases in determining which is the more appropriate term, that I shall not attempt it, until further instructed by the often-promised, but long-deferred Essay on Contagion, in a cotemporary Journal; which, however, I at length almost despair of seeing in my time: 'vita brevis, ars longa.'

"Upon the much-agitated question of contagion in the yellow, or that ridiculous misnomer Bulam, fever, you justly observe, that in the

opposite opinions of the Ultra's it is either all contagion or no contagion; they will admit no compromise: the thing either is or is not. This is a most fallacious mode of reasoning as applied to medical science, contradicted by daily occurrences, and rejected by more experienced and rational observers.

"In the instance of yellow fever, however, I must remark, that in my opinion the anti-contagionists have at last made good their position, as far as it can be made good in any fever whatever: for from much personal experience, and from the weight of evidence that has been brought to bear upon this point from various quarters, I am perfectly convinced that in its native character it possesses no contagious quality. Whether it ever can acquire such a property by fortuitous circumstances is a different question; which, if it cannot be completely answered, may be greatly narrowed in compass by asking another. If pure inflammatory fever, or if gartritis, (which diseases it most resembles) or if, in fine, any or every disorder, attended with febrile action, can by crowding, want of ventilation, &c. originate a communicative fever, then, assuredly, under such circumstances, yellow fever is communicable; but, in my opinion, not otherwise: and in this opinion I have reason to believe I am not singular, from some reports which I have seen.—[This is a point which, among others, I would fain hope to see settled in the long promised Essay above alluded to; but, perhaps, I am too sanguine in my expectations.]

"I cannot, therefore, agree with you, while we have seen (what every hospital officer *has* seen,) so many hundreds and hundreds of instances where no disease has followed the placing of persons labouring under yellow fever amongst other patients; and while we have so many affirmations similar to these of M. Vanlentin, quoted by you at page 512, that "we want facts to prove that no virus is formed in the body of an individual labouring under this fever, capable of impregnating or inoculating another," &c.; and I must conclude, that this disease is *not*, unless every other febrile disorder, under certain circumstances, *is* communicable. Neither, though the illustration of debarking diseased seamen on a healthy shore is a very good one, can I coincide in your bringing together for that purpose "the plague, or ship distemper;" for, if by the former you mean the specific disease usually so called; and by the latter, the ship, camp, or typhus fever; these diseases, and the yellow fever, are all, in my opinion, perfectly distinct, and governed by different laws. I readily join in your approbation of Dr. Veitch's publication "on the non-contagious nature of yellow fever;" but candour obliges me to add, that its merit would have been greatly more considerable if it had not been preceded so many years ago by Dr. Bancroft's very able and argumentative work, after which any refutation of the hacknied Hankey illusion must be completely supererogatory.

"You seem to have lost sight of the same author's powerful "sequel," lately published, when you mention that the Lords of His Majesty's Privy Council had directed Dr. Veitch to report *his* opinion. By a reference to that work, you will perceive that Dr. V—— was but one

among many directed to make such a report by the Commissioners of the Naval Medical Service, in consequence of a requisition sent to them by their Lordships; and you will, moreover, see therein, not only the substance of the opinions of a great number of the most distinguished medical officers of the navy, but of the army also, and from other quarters; forming, altogether, a mass of evidence so overwhelming in favour of the anti-contagionists, that the question must be considered, by every unprejudiced person, (and it has been so considered in a former Number by the late Editors of the REPOSITORY,) as laid for ever at rest, if it be possible for the unquiet spirit of contagion to rest even in the grave.

"Before I conclude, (though if 'treated politely,' to use an Americanism, you will probably hear from me again, but not immediately,) allow me to thank you for the amusement afforded by your sensible and humourous depiction of 'Modern Maladies,' in your Oration before the Medical Society: the portraits, though highly coloured, have a strong verisimilitude, particularly that of the Hepatic Theorists. I should be 'playful as a lamb, and harmless as a dove,' as a regretted, lately deceased Journal observes, if I durst venture to appear cheerful in the company of these gloomy, bilious looking gentlemen, who, from having overgrown livers themselves, I suppose, fancy that those of their patients (Lord help them in this hot weather,) are constantly overacting, or underacting; and think it necessary, in consequence, to throw in scruples of their '*sweet mercury*,' without any scruples at all. "I am, Sir, &c.

"CENSOR."

Averse as we profess ourselves to be from the principle of replication in respect to the critical department of the Journal, we have inserted the above notice of some of our former remarks, in order partly that an opportunity might be afforded us of mentioning one or two particulars in the way of explanation.

We would then further express it as our opinion, that *all* fevers which are idiopathic, and which have any thing of a peculiarly characterizing nature, may become communicable by the combined action of their specific exciting cause, and the other circumstances conceived to be necessary for the generation and action of their peculiar virus. Nay, we by no means think it proved, that even common catarrhs are not possessed of certain contagious properties; and we certainly incline to the inference, that the effluvium from the ulcerated lungs of an individual affected with a real tubercular phthisis, does to a certain degree influence the predisposed to consumption in the way of exciting cause. In these cases, let it be understood, that we only admit a degree, and that a very slight one, of contagious operation, still supposing the conjunctive aid of other influences.

With respect to the writer's complaint, that the circumstance

had been overlooked by the reviewer, of Dr. Veitch having been only one out of many individuals applied to by the privy council for his opinions on the origin and peculiarities of the yellow fever, it is only necessary to say, that the Review had no further business for the time being with any other advocate for the same cause; its object being merely that of deciding upon the tenor and merits of Dr. V——'s portion of the controversy. Had there appeared in evidence any desire on the part of Dr. Veitch to appropriate to himself the merits of Dr. Bancroft and others, the case would then have been different, and it would have become the duty of this critic to have detected and exposed such unfair dealing: but Dr. V. had a plain and simple duty before him, which he performed in a manly and liberal spirit.

It has been thought right even to present the last paragraph of the above letter, which alludes to a pamphlet of the Editor's, that we may be able, as unobtrusively as such explanations can be made, to endeavour at the counteraction of an opinion, which it has been intimated to us has gone abroad into the world, viz. that the Editor's particular feelings on the subject of medicine might influence his mind with respect to the admission of essays in that department of the Repository devoted to Original Communications. Than such a notion nothing could possibly be more unfounded. A Medical Journal is, or ought to be, a vehicle for the utmost freedom of discussion; and it cannot be expected that any one or more individuals who may undertake its superintendence, can entirely coincide in sentiment with the several writers who contribute their shares to its support. To object then to the reception of papers because there may be a difference of sentiment between the writers and editors, would argue both injustice and inconsistency; nor would it have been thought at all requisite even to make such a remark, had it not been for the actual intimation above alluded to.

PART III.

SELECTIONS.

Description of Mr. Henry Tritton's *improved Apparatus for Distillation.*

(From the Philosophical Magazine.)

This apparatus, for which the inventor has obtained patents for the United Kingdom and the Colonies, is so simple,

so efficacious, and at the same time so important in its results, that we are persuaded our readers will feel gratified in being made acquainted with it.

Mr. Tritton encloses the body of his still in an outer case filled with water in such a manner that no heat can get to the still, but through the medium of the water, and consequently no heat greater than the boiling point of water can reach its contents. Before commencing the distillation, the still and the other vessels connected with it are exhausted of air by means of an air-pump. A close condensing vessel is used, instead of the worm commonly employed, which is connected with a close receiver by means of a pipe; and in the pipe there is a stop-cock by which this communication may be closed as occasion requires. The receiver has on its top a stop-cock for the admission of the air when necessary, and both the receiver and the still have proper discharge cocks, and may have man-holes or cap-screws in any convenient situation for cleansing them, and any other useful appurtenances.

In this improved apparatus, the produce in the receiver may at any period of the distillation be examined without interrupting the progress of the operation; for by turning off the stop-cock, so as to close the communication between the close condenser and the receiver, the latter may be opened, without suffering air to get into the other vessels, so as to stop or impede the distillation. The advantages presented by this invention are many and important. By the removal of the pressure of the air from the surface of the liquid in the still, a very moderate heat suffices to effect distillation—far less than in the common process; and a great saving of fuel is effected, which (for the Colonies especially) is a consideration very important.

To show the extent of this benefit, it may be stated, as the result of repeated experiments, that distillation in this improved apparatus takes place at a temperature full 80° below the common boiling point of 212°. By the regular application of this low degree of heat through the medium of the liquid in which the still is immersed, any empyreuma is entirely prevented, and the produce in the improved apparatus is rendered far superior to the best produce of common distillation. No accident of burning to the bottom can occur in this apparatus, nor can loss by evaporation, inevitable at the worm's end in the common mode, and sometimes great when too fierce a fire is kept up. The durability of the vessels is also promoted by this new construction and mode of operating; and as less heat is required for distillation with this apparatus, so less cold water is wanted for condensation,

which in several of the West India islands, that have but a very scanty supply of that useful article, is a very desirable saving. These advantages have been proved by many decisive experiments, and the quality of the spirit obtained by distillation in this improved method has been pronounced unrivalled by gentlemen eminently competent as judges on the subject. Those who are interested in such improvements may see the apparatus at work at the premises of the patentee, No. 63, Whitechapel, London, who has the permission of the Honourable Commissioners of His Majesty's Excise to erect his improved apparatus for distilling, for the use of distillers, rectifiers, &c.

On a Case of Formation of Ice on an Alkaline Solution. By Mr. Gavin Inglis.

(*From the Philosophical Magazine.*)

A curious case came under my observation this morning, of a formation of ice on a solution of ashes. It had so much attracted the attention of the servants before I got sight of it, that a number of them were ranged round the boiler in a state of admiration, looking at what they called *the pattern*, alluding to beautiful six-pointed stars of the most regular formation, which covered the surface of the liquor, each point bearing a most striking resemblance to the termination of a full-spread fern leaf. The most beautiful and perfect were in the centre, towards the sides the same form of leaf continued, but they were laid rather like a parcel of stars previously formed, thrown confusedly over one another. The complete stars measured from the centre to the point of the figure two inches and a half. The first glance of this ice struck me as bearing a strong and marked resemblance to the snow observed by Dr. Clarke during his stay in St. Petersburgh. I immediately sent for that volume of his Travels, and on the spot compared the figure given in vol. i. p. 12, and found it was impossible to give a more exact representation, than by extending the dimensions of Dr. Clarke's fig. 1. The beautiful radiations of this ice must have proceeded from the component parts of the solution, which was made from ashes recovered from waste lees highly carbonated, containing some ammonia and a portion of nitre. The latter is formed in considerable quantity in the lees during the operation of bleaching, particularly when cottons are under operation. The specific gravity of this solution was 1·115. Two other boilers containing a solution of carbonate of potash, the specific gravity 1·057 and 1·073, were covered with a coat of ice, soft and porous, better than an inch in thickness, rather

resembling wet snow slightly compressed, having no regular figure, and little more adhesion than to admit its being taken off in flat pieces: no appearance of lamination whatever, whereas the laminated ice was thin, solid, and shining.

Dr. Clarke in his Travels, 4th edit. vol. i. p. 11, marked on the margin "Extraordinary Phenomenon," says, "The season began to change before we left Petersburgh, the cold became daily less intense, and the inhabitants were busied in moving from the Neva large blocks of ice into their cellars. A most interesting and remarkable phenomenon took place the day before our departure; the thermometer of *Fahrenheit* indicating only nine degrees of temperature below the freezing point, and there was no wind. At this time snow, in the most regular and beautiful crystals, fell gently upon our clothes, and upon the sledge as we were driving through the street. All of these crystals possessed exactly the same figure and the same dimensions. Every one of them consisted of a wheel, or star, with six equal rays, bounded by circumferences of equal diameters; having all the same number of rays branching from a common centre. The size of each of those little stars was equal to the circle presented by the section of a pea into two equal parts. This appearance continued during three hours, in which time no other snow fell; and as there was sufficient leisure to examine them with the strictest attention, we made the representation given in fig. 1.

"Water in its crystallization seems to consist of radii diverging from a common centre, by observing the usual appearances on the surface of ice:—perhaps, therefore, it may be possible to obtain the theory, and to ascertain the laws from which this structure results.

"*Monge*, President of the National Institute of Paris, noticed in falling snow, stars with six equal rays descending, during winter, when the atmosphere was calm. *Haüy* records this in his observations on the *muriate of ammonia*."

As all regular crystallization must be governed by, and depend on, some unalterable laws in nature, I have no doubt but the Russian snow observed by Dr. Clarke, and the Parisian stars noticed by M. Monge, and the above radiations on this alkaline solution, were identically from the same cause—the presence of ammonia, and nitre, in both. The quantity of ammonia produced in large cities must be immense. Independent of every other source, what must be formed in the ordinary culinary operations of the kitchen? this must be driven into the atmosphere. From the same source nitrogen *per se* may be supplied in no mean quantity, or liberated by the decomposition of a portion of the ammonia. May not condensation be of use in atmospherical combinations, and nitrates as well as

ammoniacal salts formed, and the aqueous vapours impregnated with these saline productions, prior to freezing or forming into snow, and the beautiful regularity of this phenomenon proceed from the habitudes of ammoniacal crystallization as recorded by *Haüy?* May not this also account for the extraordinary quantity of nitre found in some soils where deep vegetable mould predominates? The nitrogen descending with rain or snow, may combine with the potash of decayed vegetables already existing in the soil, and become the parent of this native salt. Or can it be possible that the mere abstraction of caloric has any share in the formation of potash, and hence nitre? It is well known that frost alone produces in potatoes a saccharine matter that renders them sensibly sweet to the taste. It is also known to you, that potatoes once gone into putrefaction by the effects of frost, contain *nitre* in such quantity as to answer the purpose of making match paper: before the potatoe undergoes these changes by the effects of frost and putrefaction, no saccharine matter is perceptible, nor nitre to be found.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PRACTICE OF MEDICINE.

Results of Experiments, upon the Efficacy of Sulphur Fumigations, according to the Method recommended by Dr. Gales, *at Paris, for the Cure of the Itch, made by* Dr. Horn, *at Berlin.* Communicated by Dr. Gumprecht, Counsellor and Knight, Hamburgh.

Dr. Gales, physician and formerly apothecary at Paris, having recommended sulphur fumigations for the cure of the itch, and other cutaneous complaints, the same were subjected to trial at our Institute, during the months of January, February, and March, 1817, according to the directions given by him in the first report of his publication, entitled, "Mémoire et Rapports sur les Fumigations Sulfureuses, appliquées au Traitement des Affections Cutanées, et de plusieurs Maladies, etc." Paris, 1816, from page 24 to 42. But Galés's fumigating apparatus, wanting frequent repairs, as the sulphuric vapour, finding so many small outlets, penetrated into the mouth and breast of the patient, the experiments were often interrupted. Notwithstanding these impediments, thirty-four individuals, labouring under different degrees and forms of the true itch, were, agreeably

to prescription, exposed to these sulphur fumigations; but the success of this procedure proved by no means complete: for it appeared;

1. That children, pregnant and lying-in women, and all those irritable and valetudinarian subjects, in which congestions about the breast and head must be avoided, could not bear these fumigations. From the most imperceptible crevice in the joints and component parts in the apparatus, so much vapour might easily escape, as to cause vertigo, fainting, oppression, and even spitting of blood. Sometimes when no vapour issued, many patients felt such a heat in the skin, that they could not bear the continuation of the process. In cases of itch, attended with ulcers, the process often produced erysipelatous inflammations, which sometimes became violent.

2. The cure, at the medium, proceeded slower than by following the method practised here; so that in divers cases, after these fumigations had been continued with great perseverance, it was found necessary, as the complaint was not entirely removed, to discontinue them, and the old process was resorted to for completing the cure. In this manner the stay of many patients in the Institute was unnecessarily prolonged, and the expenses of their maintenance proportionably increased. Dr. Galés's assurance, that the infectious quality of the itch was removed after the second, sixth, or tenth fumigation, was not confirmed; on the contrary, new itchy pustules, differing not in the least from the former, not unfrequently made their apppearance, after far more numerous fumigations.

As only two individuals could, at a time, be exposed to the vapour in the fumigating apparatus, it produced this inconvenience, that even if the machine was employed from morning till night, only a few, to the number of ten or twelve, could take the benefit of the apparatus in the course of the day: when, on the other hand, in a few bathing tubs, of the usual kind, an hundred persons and more might be bathed conveniently and successively in that period.

The persons treated with the above apparatus were females, all of them full grown, some labouring under the dry, and others under the moist itch. The duration of the complaint was very different, some having had it for several months, others only for a few weeks.

The success of the treatment with the fumigating machine was as follows:—

1. Perfectly cured 5
2. Amended, but not perfectly cured, so that still partial frictions, with the linimentum sopanatum sulphuratum, must be had recourse to 3

3. Uncured, as the procedure must be interrupted on account of the above-mentioned untoward accidents 5
4. Remained uncured, on account of the fumigations not being efficacious, or the escape of the sulphuric vapour causing troublesome accidents, and the usual method of cure must be applied 10
5. Besides those twenty-three, which, immediately after their reception into this Institute, were exposed to the fumigations, eleven more were submitted to it, after having previously been treated in the usual way. After a shorter or longer application, the fumigations were dropped, as they partly did not produce any essential benefit, and partly occasioned the above-mentioned disadvantageous accidents.

Among the five patients cured, one had been exposed to thirty-five, another to thirty-six, a third to fifty, a fourth to sixty, and the fifth to ninety-two fumigations, at the prescribed rate of two fumigations per day.

Of those in which the fumigations produced unfavourable accidents, such as complaints in the breast, vertigo, faintings, vomiting, erysipelatous inflammations, &c. which made it necessary to discontinue them, one had been subjected to fifty-three, another to forty-six, and a third only to two fumigations.

Among those that experienced some amendment, but were not perfectly cured, and where partial frictions, with the linimentum saponatum sulphuratum were had recourse to, one had taken forty-one, one fifty-five, and one eighty-six fumigations.

Of the patients which had not been perceptibly amended, one had been subjected to one hundred and five, two to eighty-eight, one to sixty-one, one to fifty-nine, one to fifty-four, one to fifty-two, one to forty-one, one to twenty-nine, and one, on account of the obvious inconvenience of the apparatus, to only seven fumigations. The seams and joints of the machine giving way, and the heat of the smoke making the doors, before well closed, untight, the leather covering drawn round the neck of the patient also offering many scarcely visible outlets; the escape of the sulphuric vapour, which even caused oppression and cough to the attending surgeons, nurses, &c. could not be entirely avoided.

The results of these experiments, therefore, prove the treatment of the itch, hitherto adopted in our Institute, to effect an incomparably safer, quicker, and more radical cure, than the method recommended by Dr. G——; not to mention the advantages of its never producing any of those unfavourable subsequent effects, and that it may with safety be administered without exception, in all cases of itch, even to pregnant women, and children afflicted with eruptive complaints.

Effects of Coffee in Diabetes. By the Same.

Dr. Nasse, in Halle, relates a case of the diabetes mellitus, where every recommended remedy (except blood-letting continued ad deliquum,) had been tried without any success. Opium, according to Dr. Warren's recommendation, had been administered in large doses for a fortnight, beginning with six grains a day, then quickly raising it to thirty-six grains; which large quantity the patient took for four days, without finding any relief. In the course of the sickness, it occurred once or twice that the urine lost its sweet taste, became saltish again, and the usual sweet sensation in the mouth disappeared; of which temporary change Dr. Nasse was long endeavouring in vain to find out the cause. At last it appeared that this change occurred when the patient had been drinking coffee a short while before. Copious draughts of coffee, and even roasted coffee in powder, were now prescribed, in consequence; and he consumed, in the course of six weeks, a pound of raw coffee every three days, in both the aforesaid ways: this produced a good effect for some time: the quantity of urine decreased to one and a half per day, and its sweet taste was almost entirely gone; but afterwards the complaint increased again, and the coffee did not procure any relief. However, as it had proved of superior efficacy to any other remedy, Dr. Nasse intends to make more trials of its virtue in his hospital at Halle.

External Application of Tartrate of Antimony. By the Same.

The outward application of the tartrate of antimony is well known in rheumatic cases; it is generally dissolved in distilled water. Dr. Nieman, in Mersbury, however, found the application of it in form of a plaster more fit for the purpose, and even, in many cases, preferable to the ointment of tartrate of antimony, for which purpose he recommends the following composition: ℞ emplastri resinæ pini, pharm. boruss. unciam unam, resinæ pini unciam semis, terebinthinæ Venetæ drachmas tres, liquatis admisce tartri antimonii unciam unam semis. Dr. Nieman acknowledges the beneficial effects of the said ointment of tartrate with deserving praise, particularly in scrofulous inflammations of the eye, in blenorrhoea of the meatus auditorius, if rubbed in behind the ears; as also in cases of insanity, when rubbed in on the skull: however, the application in form of a plaster deserves the preference in such cases, where, for instance, with children, the friction cannot be long continued, and he therefore applies the same in the following cases:—

1. In congestions of blood about the head, particularly in infants at the breast, upon whom he places a plaster as large

as the palm of the hand, between the shoulder blades. The action of the tartrate of antimony upon the vasa capillaria cutis, is surprising; the pustules raised by the plaster are filled with blood, and the increased activity in them must be particularly beneficial in infantine subjects; for which reason Dr. Nieman, in cases of a suspected hydrops ceribri acutus, prefers the plaster of tartrate of antimony to every other stimulant of the skin.

2. In cases of angina, and inflammations of the larynx; but in cases of angina membranacea it is not much to be depended upon.

3. In rheumatisms he applies it on the joints of the limbs, and in these cases sometimes re-inforces it with opium; in rheumatic toothach it has frequently proved effectual.

4. In chronic pains on the breast, particularly where the patient has a disposition towards consumption. Some skins are quite insensible to it, on others it produces a speedy effect. With children, the space covered with it must be examined every twelve hours; and though the common pustule may be left to nature, as it soon passes over into a scurf, without giving any further trouble, yet large sanious pustules sometimes cause disagreeable sensations, and terminate in deep ulcers, which leave very visible scars behind.

CHEMISTRY.

Casual Existence of Arsenic in Oxyde of Zinc.

Dr. Rolof, at Magdeburgh, has communicated a discovery important to medical practitioners respecting the casual existence of arsenic in oxyde of zinc. In his official visitations of the apothecaries' shops, the oxyde of zinc found there was dissolved in a sufficient quantity of acidum nitricum, and filtered. To this filtrated fluid, nitrate of silver was added, as long as any precipitate was formed: this precipitate collected upon the filter was dried, mixed with a sufficient quantity of fresh charcoal powder, and sublimated in a glass tube hermetically closed at the bottom, when a white sublimate formed itself in the upper part of the tube, which on being dipped into *hydrogene sulphurique*, assumed a yellow colour, and thus plainly indicated itself to be arsenic. To find out the proportionable quantity, the scale last given by Bezzelius, respecting the proportion of the neutral combinations of the oxyde of arsenic with the bases, was adopted, from which it appeared, that the suspicious oxyde of zinc contained one-third of a grain of oxyde of arsenic in 500 grains. The oxyde of zinc being at present so frequently administered in large and increasing doses, and most frequently to children in their first infancy, as an antispas-

modic, it cannot possibly be a matter of indifference to the physician, whether the oxyde of zinc be pure or thus mixed with arsenic.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

SOCIETIES.

ROYAL SOCIETY.—April 23.—Dr. Wollaston communicated a paper by Dr. Andrew Ure, entitled, New Experimental Researches on some of the leading Doctrines of Caloric, particularly on the Relation between the Elasticity, Temperature, and latent Heat of different Vapours, on thermometrical Admeasurement, and on Capacity.

April 30.—The reading of Dr. Ure's paper was finished. It consists of three parts. The author commences by an historical view of the different experiments performed by Watt, Robison, Dalton, Biot, and others, on the elasticity of the vapours of various substances at different temperatures; and after pointing out some errors into which he conceived these philosophers had fallen, he describes the method which he followed in his own experiments. His method was to confine the vapour under examination in a portion of a barometric tube, to which was applied the flat bulb of a thermometer; it was sufficiently sensible to mark the exact degree of temperature from zero to 200° above the boiling point, where the vapour of water will support a column of mercury of 36 inches; the apparatus is so contrived, that the mercurial column itself is not heated. The author then gives an account of the physical properties of the vapour of water, of alcohol, ether, and spirit of turpentine, from below the freezing point to above that of boiling water.

The second part of Dr. Ure's paper relates to thermometrical admeasurement: he does not think that Mr. Dalton has substantiated his objections against the common thermometric scale, as he thinks the increasing rate of expansion in the mercury is exactly balanced by the circumstance of part of the mercury rising out of the ball, the part to which the heat is always applied, into the stem. In the third section the author attempts to discover by experiment the temperature at which different vapours acquire the same elastic force; the results of his experiments are placed in a table; among others, the latent heat of steam is stated to be 967°; that of alcohol, 442°; of ether, 302°; and of spirit of turpentine, 178°.

May 7.—A paper, by Thomas Smith, Esq. was read, on the peculiarity in the construction of the fangs of poisonous serpents.

A paper, by Mr. Thomas Greatorex, was also read, on the height

of the mountains in the north of England, contained in a letter to Dr. Young. His observations were principally directed to Skiddaw, and by employing what appears to have been a very accurate process of geometrical measurement, he found its elevation to be 3,036 feet 3·5 inches.

On the same evening a paper by B. Bevan, Esq. was read, consisting of the results of a registering rain-gauge, kept at Leighton, in Bedfordshire, in 1817. We are informed that there were 614 hours of actual rain, that the average rate at which the rain fell was ·68 of an inch in a day; the heaviest rain was on June 27, which was at the rate of nine inches per day.

May 21. — A paper, by John Pond, Esq. was read on the different methods of constructing a catalogue of the fixed stars.

A paper, by Lieutenant-Colonel Lambton, was also read, consisting of an abstract of the results deduced from the measurement of an arc on the meridian, extending from 8° 10′ to 18° N. latitude, and in 78° E. longitude, running through Tinnevelly and Bengalore.

Geological Society. — Feb. 20. — The reading of Mr. Parkinson's paper, on the fossils found from the east of Dover to Folkestone, was concluded.

The author, in describing these fossils, adopts Mr. Phillips's division of the beds in which they were found:

Into chalk, with numerous flints.
———————— interspersed flints.
———————— few flints.
———————— without flints.
Grey chalk, without flints.
Blue marl.

Before he enters on his description of the fossils, the author takes occasion to correct an opinion he expressed in a former communication to the Society, that the gravel round London was originally deposited in the spots which it now occupies. Further inquiry has satisfied him that it has been derived from the disintegration of the chalk. It is not the author's intention to enter into an enumeration of the fossils of the chalk generally, but to describe those collected by Mr. Phillips.

In the chalk with numerous flints, were found plagiostoma spinosa, fragments of inoceramus, several species of terebratula, several of echinus, and many cucumerine, clavated and muricated spines.

The fossils, which the author considers more particularly to demand attention, are those flints of spongeous or alcyonic origin, of which this stratum has afforded a numerous variety. In many of these, no traces of organization are to be observed in the flint; but its origin is inferred from its peculiar form; in others the flint is of a brownish colour, and displays the structure of the spunge or of some other body allied to the Polype tribe.

In the bed with interspersed flints, an imperfect nautilus was found, and several species of terebratula, and of echini already noticed, and the remains of alcyonia and of sponges. A specimen of the plagiostoma spinosa was found with the valves expanded and filled with flint.

Some of the chalk exposed to the action of dilute muriatic acid, developed a fine floculent substance, which fell on the slightest agitation of the vessel.

The chalk of the bed with few flints is heavier than that of the preceding beds, and feels gritty, giving the idea of its being blended with minute particles of sand: it contains the palates of fish in tolerably good preservation. The remains of alcyonia and of sponges are also very abundant, and their structure is more evident than in the preceding occasioned by a strong impregnation of iron. Many shells of the genus terebratula, agreeing with those found in the preceding beds, were collected here, with two varieties of the plagiostoma spinosa, a valve of inoceramus in extremely good preservation, a finely striated asbestiform substance of uncertain origin, several oval and rather flattened bodies, of which some appear to be pedunculated, and several remains of an undescribed shell approaching to the genus teredo.

In the stratum without flints, some traces of a solen were observed.

It is an important fact connected with the history of the beds of chalk, that in the ocean which deposited these beds, the whole race of animals inhabiting the ammonitæ, belemnitæ, and most other multilocular shells, became extinct. The nautilus is the only shell of this class found in the blue clay; and this, with the spirula, are, perhaps, the only multilocular shells (except microscopic ones) found recent.

In and below the grey chalk, the nautili and ammonitæ are found under almost every change of form; these changes seeming to have taken place in the era immediately preceding that in which they totally disappeared. The first departure from the regular form is when the ammonites assumes an oval figure; whence it passes to the hamites, scaphites, &c. In the quarries near Maidstone a multilocular shell has been found of a cycloidal figure, much resembling one found by Dr. Macculloch in Sky, in which the termination of the inner whorl penetrates the whorl which surrounds it. The turrilites has been discovered by Mr. Mantell in the grey chalk of Sussex; and this gentleman has observed traces of organization in the chalk which are distinctly referrible to vegetable structure. In the grey chalk, large, transversely striated, eccentric nautili occur, and the alcyonium and sponge appear in great numbers and variety.

The fossils of the blue marl beneath the chalk differ from those of the beds above and below it. It contains numerous ammonitæ and hamitæ of peculiar forms, casts of turbinated shells, which the author refers to the genus pleurostoma, and one cast which he refers to solarium. Part of a large undescribed pecten was also found, and some new species of nucula. It contains also great numbers of small fusiform, and frequently transparent belemnites similar to those found at Stutgard.

Many fossil remains were found among the gravel covering the chalk. Of these, a shell is noticed resembling that of the teredo; several flints also occurred apparently derived from animals of the polype tribe, and others that appeared to owe their forms to varieties of sponge.

Mr. Frazer's notes on the Himālā mountains, accompanying a series of specimens, were read.

The plains of Hindostan are bounded on the N. E. by a mountainous tract which runs from the banks of the Burrampooter to the Indus, and, crossing that river, spreads out into a less circumscribed and less lofty highland country, the chains of which are connected with many of the chief ridges of Asia. The belt of hills which thus separates Hindostan from Thibet is perfectly unconnected and unbroken, running in irregular ridges, undivided by any valley of consequence from the one plain to the other. These mountains on the side of Hindostan rise from a level at once into sharp and precipitous cliffs, while the north-western side, according to the best accounts that have been obtained, falls more gradually into green hills, and ends in a gently sloping plain.

The great Himālā mountains form the centre of this ridge, and rear their sharp crests covered by eternal snow, to an almost incredible height, in unapproachable desolate grandeur. Mr. Colebrooke, in the twelfth volume of the Asiatic Researches, estimates the height of the different peaks at 26,862 feet to 22,000 feet. Jumnatra, the source of the Jumna, is estimated at 25,500 feet above the level of the sea. During the tour in which the specimens laid before the Society were collected, the route lay over a shoulder of this mountain within (it was conjectured) 2,000 feet of its summit. The specimens were collected between the rivers Bhagirutta and Sutlej. The general line of the mountains is here nearly N. W. and S. E. A small abrupt ridge rising from 500 to 750 feet in height, and extending from three to six miles in breadth, runs next to the plains from Hurdwar, half way to the Sutlej. This consists of sandstone, indurated clay, and beds of rounded pebbles and gravel. The next range of hills runs from 1,500 to 5,000 feet in height, with sharp narrow crests, and consists of a very decomposable greyish brown indurated clay, containing siliceous matter. Just beyond this range rises a mountain of limestone about 7,000 feet high: a large perennial stream marked the division between this range and a mass of mountains consisting almost entirely of varieties of schist, with much mica, and veined with quartz. Connected with these, were observed a coarse sandstone, and a conglomerate of sand, mica, and gravel, cemented by a white spar easily frangible. As the snowy mountains were approached, rocks of white quartz were observed, and of a hard semi-transparent stone of many colours, grey, red, yellow, and greenish. On reaching the heart of the Snowy Mountains, the distant peaks appeared to be stratified, and to dip to the N. E. at an angle of about 45 degrees. For several thousand feet below their tops, all vegetation ceases, and no living thing is to be seen. The returning route was for a considerable way along the bed of the river Pabur, which rises among the depths of the Himālā: in this bed, blocks of a peculiar kind of rock were found. The neighbouring rocks were schist and limestone. Another opportunity presented itself of viewing the summits of the Himālā from Jumnatree, which rises in two grand peaks, covered on the S. and S. E. by perpetual snow, but showing a

precipitous rocky face towards the N. W. The river Jumna was here traced to its source in a number of small rills flowing from the snow, and collected in a pool at the bottom of a steep slope. Nearly every sort of rock observed throughout the tour was found here, particularly the rock before referred to as occurring in the bed of the river Pabur, and white quartz in veins intersected the general stratification. From these veins trickles a stream of hot water impregnated with calcareous matter, which it deposits on the surface of the rocks over which it runs. There are no glacieres in any part of the snowy mountains; but a perpetual frost appears to rest on their summits.

After descending into the bed of the Bhagirutta, that river was also traced nearly to its source: the glen through which it runs is deeper and darker, and the precipices on either side far more lofty than those forming the bed of the Jumna: the rock in the neighbourhood of its source was granite, and contained black tourmaline.

Linnæan Society. — Nov. 4, and Dec. 2. — A paper was read, by the Rev. W. Kirby, entitled a Century of Insects, including several new Genera, described from the cabinet of the author.

Dec. 16. — A Description of the Island of Tristan da Cunha, by Captain Carmichael, was read.

Jan. 20, 1818. — The following communications were read:—

Conclusion of Captain Carmichael's paper.

Observations on Solanum Tuberosum, and other plants, by A. B. Lambert, Esq. V.P.

A letter from the Rev. R. Sheppard on the Ardea Major.

A letter from the Rev. J. Skinner, of Cammerton, near Bath, on the Coal Fossils in that neighbourhood.

A letter from his Excellency De Witt Clinton, on a new species of Triticum, found near Rome, in the United States.

Feb. 3. — Observations on Pelecanus Aquila, or Frigate-bird, by Ed. Barton, Esq.

Feb. 17. — The continuation of the Rev. W. Kirby's description of new insects was read.

March 3. — Observations on the Flora of Tristan da Cunha, by Captain Carmichael.

March 17. — The following papers were read:—

A letter from Dr. C. Meryon, on a fish mentioned by Dr. Clarke in his Travels, and on two others taken on the coast of Syria.

Remarks on the genera Orbicula and Crania of Lamark, by Mr. G. B. Sowerby.

April 7. — The commencement of a paper, on the poison of fishes, by Dr. D. J. H. Dickson, was read.

April 21. — The communication from Dr. Dickson, on the poison of fishes, was concluded.

By the poison of fishes, Dr. D—— does not mean the serious, and sometimes fatal consequences arising from wounds inflicted by the spines of the sting ray and other species of fish; but those which result from eating certain fish, or parts of fish. The journals of many voyages present us with instances of sickness more or less violent, accompanied by intumescence of the body, and irritating eruptions of the skin, being the consequence of eating certain fish. Often the

noxious quality appears to reside in a particular part, especially the liver and intestines, as appears from the circumstance of those persons alone, out of a ship's crew, being thus affected who have eaten these particular parts. It is a matter of common observation that all fish are more wholesome and a more agreeable food before than after spawning; the fish, in the former case, being in high health and vigour, but in the latter, being sick, emaciated, and their muscular fibre becoming remarkably flabby. The difference between these two states, which in the temperate European climates seldom amounts to more than a difference in the agreeableness of the fish, considered as an article of food, often, in tropical climates, causes the same species to be in the one case a wholesome, and in the other case a very pernicious food. Again, certain species, especially in the West Indies, are observed at the same season to be wholesome in certain situations, and very much the contrary in others. Thus all the fish on the coast of Barbadoes are said to be safe food, even those which on the coasts of the other islands are deleterious. Examples also have occurred of a ship on one day falling in with a shoal of fish which proved perfectly wholesome, and on the very next day falling in with a second shoal of the same species which were found to be poisonous.

The cause of these differences it is not very easy to ascertain. The common test among seamen of the safety or hazard in feeding on any suspected or unknown kind of fish, is to put a piece of silver into the boiler together with the fish, and if the silver acquires a coppery colour the fish is considered as unwholesome. The coppery, or rather brassy colour thus produced, has probably been the reason why the flavour of fish in this state has been attributed to copper, with which they have been supposed to be infected by feeding on banks of copper ore. But the discoloration of the silver is probably owing to sulphuretted hydrogen, and it is a well-known fact that the drainings of a copper mine are so peculiarly noxious to fish, that many lakes, formerly abundantly stocked, have been entirely depopulated by this very circumstance. Vegetable poisons swallowed by the indiscriminate voracity of this class of animals, have been considered as the cause of the occasional unwholesomeness of their flesh; and Dr. Dickson is, upon the whole, inclined to adopt this opinion.

Anniversary of the Medical Benevolent Society. On Friday, May 18, the *second* ANNIVERSARY of this Institution was held at the Freemasons' Tavern: His Royal Highness the Duke of Sussex having been pleased to become the Patron of the Society, condescended to take the chair. He was supported by the Earls of Rosslyn and Blessington, the President of the Royal College of Physicians (President of the Society), Mr. Cline (Vice President), and by many of the most distinguished members of the profession, as well as by several non-professional gentlemen, who attended as friends to so excellent a charity. The company consisted of about ninety persons. The cloth being drawn, the Illustrious Duke made a most eloquent and appropriate address, in which he exhibited a very intimate knowledge of the principles on which the Society was founded, and the object it was intended to embrace. He dwelt with great feeling on the necessity

which existed for an institution for the relief of the members of the faculty, who were, from a variety of causes, more liable to the vicissitudes of life, and the frowns of adverse fortune, than those of any other profession. And although there were many societies established to extend pecuniary aid to the widows and orphans of medical men, yet, he believed there was none which, like this, was instituted for the support of the meritorious but unfortunate and distressed practitioners themselves. He congratulated the Society on the great accession of members, who were doubled in the course of the last year; nor did he doubt, when he considered how numerous a body the medical practitioners throughout the kingdom formed, and that they were men of education and reflection, that when they become more generally acquainted with this laudable undertaking, they would unanimously give it their support. Most cordially approving, as he did, the views of the worthy President of the College of Physicians, Dr. Latham, the founder, and of those gentlemen who had associated with him in establishing this Society, no exertion on his part would be wanting to lend it every possible encouragement; and he trusted that when he met the members of it at the next Anniversary, he should find that its present prosperous aspect would be fully realized, and its benefactors and subscribers be increased in a degree commensurate with the importance of the services of every class of the medical profession.

The Earls of Rosslyn and Blessington severally addressed the meeting; the former especially, in the warmest terms, passed an elegant and just eulogium on the merits of the medical character. None, he said, were more ready at all times, and to the utmost of their means, to alleviate the afflictions of mankind, than the medical practitioner; and the very nature of his services rendered it almost impossible for him to provide adequately against misfortune and the wants of old age.

For those, therefore, who were always forward in relieving others, he hoped a call on the affluent would not be made in vain, but that he should see the present Institution receiving the support of all ranks, one of the most flourishing this kingdom had to boast of.

The Treasurer announced the receipt of liberal donations from His Royal Highness and the two noble Lords; 50*l.* from Richard Thompson, Esq. M. P., 50*l.* from Astley Cooper, Esq., ten guineas from Edward Foster, Esq.; besides many other smaller benefactions. A great number of new members were likewise put in nomination.

Medical Blank Labels made by Machinery.—A novel apparatus (see the advertisement) has recently been invented, for making the labels used by Apothecaries and Chemists, in a neat, ornamental manner, by machinery. These labels are known by a small raised or embossed line surrounding them, and taking a fanciful turn at the broader extremity; also by the accurate and uniform angle in which they are folded, and the peculiarly good quality of the paper. On being opened, they will be found slanting or diagonal, and not straight like those made by the Apothecaries; so that being cut one out of the other, a great saving of paper is effected. The two sizes are well apportioned for the services required, and, upon the whole, they are con-

siderably cheaper, than persons requiring the articles, however small the quantity, can make them for themselves. They are, we understand, already used and highly approved by several of the first houses in town, as well as in the country. The principle of the thing is evidently good; and in proportion to the difficulties that must have attended it, we trust it will reward the ingenuity of the inventor.

Mr. Carmichael, of Dublin, will publish shortly, Observations on the Symptoms and Specific Distinctions of Venereal Diseases; interspersed with hints for the more effectual prosecution of the present inquiry into the uses and abuses of mercury in their treatment.

ASSOCIATED APOTHECARIES, AND SURGEON-APOTHECARIES OF ENGLAND AND WALES.

THE Annual Meeting (agreeably to the resolution passed in August, 1817,) of this Association, will be held at the Crown and Anchor Tavern, in the Strand, on Wednesday, July 15, 1818, at two o'clock: to receive the Report of the Committee, and make such further arrangements as may tend to promote the public welfare, and at the same time support the interest and respectability of the Profession.

JAMES PARKINSON, *Chairman.*

Chair to be taken at Three o'Clock precisely.

The Anniversary Dinner will be on the same day, at the above tavern, at five o'clock. Such gentlemen as may be disposed to favour the Stewards with their company, are requested to signify their intentions on or before Saturday, the 11th instant, by letter, directed to the Secretary, Mr. Powell, No. 62, Newman Street, Oxford Street.

STEWARDS.

J. Upton, Esq.	J. Parkinson, Esq.
J. Hunter, Esq.	C. Hayden, Esq.
J. Seaton, Esq.	J. Hayes, Esq.
W. Drew, Esq.	E. Leese, Esq.

June 25, 1818. *Tickets* 16*s. each.*

We have received an affecting application in behalf of naval Surgeons, placed out of employ by the peace; and it has been suggested to us, that this evil might be in some measure remedied by Government enforcing upon merchant ships of a certain number of men and tons, the regulation of having a medical man to sail with them. It is well known that many serious terminations of accidents have occurred for want of this regulation, and we should be exceedingly happy to find both the evils in question remedied.

We are requested to announce, that at a meeting of the Royal Medical Society of Edinburgh, held a little while since, it was resolved to erect some memorial of their late respected fellow member, Dr. GORDON; and that, as it is presumed, there are several of his pupils, in different parts of the world, who would be desirous to contribute something towards defraying the expense of such an under-

taking, the Society have requested Messrs. Underwood, of Fleet Street, to receive subscriptions from any gentlemen who may feel thus disposed. It is intended, if practicable, to have a bust of Dr. G——.

We are truly concerned in having to announce the lamented death of Dr. Adams. The particulars of this event, and a sketch of Dr. A.'s life, must be deferred till our next Number.

The following announcement has been sent to us, with a request for its insertion in the Repository: —

NEWLY DISCOVERED MEMBRANE IN THE EYE.

Doctor Jacob, Demonstrator of Anatomy in the University of Dublin, has discovered and demonstrated, in his Lectures on the Diseases of the Eye, this spring, a membrane covering the external surface of the retina, in man, and other animals. Its extreme delicacy accounts for its not having been hitherto noticed. He arrived at the discovery by means of a new method of displaying and examining this and other delicate parts. He argues from analogy, the necessity of the existence of such a membrane, as parts so different in structure and functions as the retina and choroid coat, must otherwise be in contact, in contradiction to the provisions of the animal economy in general. A detailed account of the discovery, with the method of displaying the membrane, is in preparation, and will shortly be laid before the public.

LITERARY INTELLIGENCE.

In the press, a second edition of Dr. W. Philips's Experimental Inquiry into the Laws of the Vital Functions, and the Nature and Treatment of Internal Diseases.

Dr. Ayre, of Hull, is about publishing, in one vol. 8vo. Practical Observations on the Nature and Treatment of Marasmus, and of those Disorders allied to it, which may be strictly denominated bilious.

LECTURES.

Dr. J. B. Davis gave his introductory Lecture on the "Diseases, Medicinal Management, and Nursing of Children," on the 18th ult. at the Universal Dispensary for Children, and continues to give his Lectures on this branch of the practice of medicine, every Monday, at 12 o'clock, at the above Institution.

THE METEOROLOGICAL JOURNAL,

From the 20th of MAY to the 19th of JUNE, Inclusive.

By Messrs. **HARRIS** and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.			Barom.				De Luc's Hygrom. *Dry.*		*Damp.*		Winds.		Atmo.	Variation.	
20	●		51	61	45	30	03	30	12			10	12	NE	NE	Fine	——	Clo
21			50	58	43	30	12	30	18			10	9	NE	NE	Clo.	Fine	Clo.
22			49	54	41	30	19	30	24			7	9	NE	NE	Fine	——	——
23			49	57	41	30	17	30	12			5	6	NE	NE	Clo.	Fine	——
24			48	56	42	30	17	30	21			2	2	NE	NE	Fine	——	——
25			50	58	45	30	25	30	25			1	1	NE	NE	Fine	——	——
26	☽		49	60	48	30	29	30	30		0	1	0	NE	NE	Fine	——	——
27			52	59	48	30	28	30	23	0	0	0	0	NE	N	Fine	——	——
28			52	61	47	30	20	30	17	0	0	0	0	NE	NE	Fine	——	——
29			53	61	48	30	12	30	13	1	1			E	E	Clo.	Fine	——
30			55	63	50	30	09	30	00	0	0	0	0	N	N	Fine	——	——
31	☾	,04	57	65	51	29	99	29	97			7	9	E	N	Fine	——	——
1			57	68	53	29	90	29	90			9	11	N	SW	Fine	Clo.	Rain
2			59	68	54	29	91	29	98	0	5	0		SW	S	Fine	——	——
3			58	66	54	30	00	30	00	2	0		0	SW	N	Fine	——	——
4			59	69	56	30	03	30	07	0	5	3		NE	NE	Fine	——	——
5			60	70	58	30	18	30	22	7	3			NE	N	Fine	——	——
6			61	70	56	30	29	30	35	5	3			E	E	Fine	——	——
7			61	75	57	30	39	30	40	5	5			NE	N	Fine	——	——
8			63	78	57	30	37	30	33	2	1			E	NE	Fine	——	——
9			63	77	57	30	30	30	27	0	0	0	0	E	NE	Fine	——	——
10			63	77	59	30	21	30	19			9	11	NNE	N	Fine	——	——
11	☾		65	78	58	30	15	30	10			13	7	E	ENE	Fine	——	——
12			67	80	61	30	07	29	98	0	0	0	0	SE	SW	Fine	——	Clo.
13			69	80	59	29	91	29	90			4	5	SSW	WSW	Fine	Rain	Fine
14		,02	63	70	60	29	98	30	04			5	7	SE	E	Clo.	Sho.	Clo.
15			64	69	59	30	04	29	95			10	10	SSW	SW	Clo.	Fine	——
16			65	73	59	29	94	29	85			11	10	WSW	S	Fine	——	——
17			61	72	56	29	79	29	74			11	15	S	S	Clo.	Rain	——
18	●	,05	59	69	57	29	74	29	73			15	10	SW	NW	Fine	Sho.	——
19		,07	59	67	53	29	72	29	63			10	10	SW	SW	Fine	Rain	——

The quantity of rain that has fallen in the month of May is 1 in. and 79-100ths.

A REGISTER OF DISEASES

Between MAY 20th and JUNE 19th, 1818.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	14		Febris *Typhus mitior*	17	2
Abscessio	15		—— *Typhus grav.*	14	6
Amaurosis	1		—— *Synochus*	62	1
Amenorrhœa	15		—— *Puerpera*	2	
Amentia	1		—— *Remit. Infant*	15	1
Anasarca	16	1	Fistula	1	
Aphtha *lactentium*	4		Gastritis	4	
Apoplexia	3	2	Gastrodynia	17	
Ascites	8		Gonorrhœa *pura*	7	
Asthenia	13		Hæmatemesis	3	
Asthma	26	3	Hæmaturia	3	
Atrophia	1		Hæmoptöe	12	
Bronchitis *acuta*	1	1	Hæmorrhois	9	
—— *chronica*	7		Hemiplegia	3	
Calculus	1		Hepatalgia	3	
Cancer	4		Hepatitis	10	
Cardialgia	7		Herpes *Zoster*	1	
Catalepsis	1		—— *præputialis*	1	
Catarrhus	36		Hydrocele	1	
Cephalalgia	16		Hydrocephalus	4	2
Cephalæa	1		Hydrothorax	2	
Chlorosis	3		Hypochondriasis	1	
Chorea	8		Hysteralgia	1	
Cholera	14		Hysteria	6	
Colica	6		Icterus	5	
—— *Pictonum*	7		Impetigo *figurata*	3	
Contractura	1		Ischias	4	
Convulsio	2		Ischuria	1	
Cynanche *Tonsillaris*	14		Leucorrhœa	15	
—— *maligna*	1		Lichen *simplex*	2	
Diarrhœa	38		Mania	3	
Dysenteria	15	1	Melancholia	1	
Dyspepsia	27		Menorrhagia	26	
Dyspnœa	9		Morbi Infantiles*	36	1
Dystocia	1		—— Biliosi*	26	
Dysuria	2		Nephritis	2	
Ecthyma	1		Obstipatio	8	
Eczema	2		Odontalgia	19	
Eneuris	1		Ophthalmia	15	
Enteritis	1		Otalgia	1	
Entrodynia	4		Palpitatio	1	
Epilepsia	5		Paralysis	7	
Epistaxis	7		Paraplegia	1	
Erysipelas	10		Paronychia	4	
Erythema *lœve*	4		Pericarditis	1	
—— *papulatum*	3		Peripneumonia	6	
—— *nodosum*	2		Peritonitis	7	
Febris *Intermittent*	1		Pertussis	26	1
—— *catarrhalis*	42		Phlogosis	10	
—— *Synocha*	2		Phthisis Pulmonalis	29	8

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Plethora	2		Scirrhus	1	
Pleuritis	17		Scrofula	8	
Pleurodyne	7		Strictura	3	
Pneumonia	3		Strophulus *intertinctus*	1	
Podagra	3	1	Syncope	1	
Polypus	1		Syphilis	20	
Porrigo *decalvans*	1		Tabes Mesenterica	6	1
——— *favosa*	3		Tic Doloreux	1	
Prolapsus	3		Tussis	3	
Prurigo *mitis*	2		Vaccinia	14	
——— *senilis*	2		Varicella	4	
Psoriasis *guttata*	2		Variola	15	
Pyrosis	3		Vermes	9	
Rachitis	1		Vertigo	19	
Rheuma. *acutus*	20		Urticaria *febrilis*	3	
——— *chronicus*	37		——— *evanida*	2	
Rubeola	35				
Scabies	72	3	Total of Cases	1207	—
Scarlatina *simplex*	1		Total of Deaths		34
——— *anginosa*	1				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

It will be seen, that under the head of Fevers of different kinds, a greater than usual number of cases are registered, and that the deaths from this source are rather in a large proportion. In the fatal instances of fever that have come under our immediate observation during the preceding months, the high temperature of the weather has appeared to operate unkindly, and to have produced considerable determinations to the head, accompanied, however, by such signal marks of debility, and happening at such an advanced stage of the disease, as to forbid much freedom in emptying the vessels.

Several cases of sudden and unexpected deaths have been reported to us as having happened to maniacal subjects, and which likewise appeared to have been immediately induced by the heat of the weather acting upon a brain already in a state of morbid excitement.

Rheumatism, as appears by the Report, is still prevalent. Is this disease actually on the increase, or do we at present class affections under the head of rheumatism, which formerly bore a different appellation?

A case of tabes mesenterica has occurred, in which there was an evident accumulation of fluid in the abdomen, and which was attended by an erythematic inflammation of the external skin. The abdominal enlargement was reduced, and, indeed, the disease altogether cured, by very small and gradually augmented doses of the tincure of fox glove.

Several ascitic affections in grown persons have been abundantly relieved by elaterium. Does not this drug deserve to be even better appreciated than it actually is, as an anti-hydropical remedy?

MONTHLY CATALOGUE OF BOOKS.

Minutes of Cases of Cancer, Part II, being further Reports of Cancerous Cases successfully treated by the new mode of pressure: with some Observations on the Nature of the Disease, as well as on the Method of the Practice. By Samuel Young, Member of the Royal College of Surgeons, &c. 8vo. 9s.

Accum on Chemical Tests. A new edition. 12mo. 9s.

Pharmacopœia in usum Nosocomii, à Thoma Guy, Armigero Fundati 1818. 18mo. 4s.

On the Safety Lamp for Coal Miners: with some Researches on Flame. By Sir Humphrey Davy. 8vo. 7s. 6d.

Faithhorn on Liver Complaints. A new edition. 8vo. 8s. 6d.

An Essay on the Symptoms, Causes, and Treatment of Inversio Uteri; with a History of the successful Extirpation of that Organ, during the chronic stage of the Disease. By W. Newnham, Esq. 8vo. 7s.

Medical Tracts, read at the College of Physicians, between the years 1767 and 1785. By Sir G. Baker, Bart. M. D. Collected and republished by his Son. 8vo. 18s.

Secours à donner aux Personnes empoisonnées ou Asphyxiées. Par M. P. Orfila. 12mo. 5s.

Strictures on the Uses and Defects of Parish Registers, and Bills of Mortality, in reference to Marriages, Births, Baptisms, Diseases, Casualties, and Burials, to the probabilities of the Expectancy of Life, and to the ascertaining of the Progress of Population; with Suggestions for improving and extending the System of Parochial Registry. By George Man Burrows, M.D. F.L.S., &c. &c. 8vo. 3s.

A Supplement to the Pharmacopœia, including not only the Drugs and Compounds which are used by the professional or private practitioners of medicine, but also those which are sold by chemists, druggists, and herbalists, for other purposes; together with a collection of the most usual medical formulæ; an explanation of the contractions used by physicians and druggists; the medical arrangement of the articles of the London Pharmacopœia, with their doses at one view; a similar list of the indigenous plants of the British Islands, which are capable of being used in medicine: and also a very copious index, English and Latin, of the various names by which the articles have been known at different periods. By Samuel Frederick Gray, Lecturer on the Materia Medica. 8vo.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Mr. Wright, Mr. Sterndale, Jun. Mr. Wansbrough, *and* Philiatros. *We should be obliged to the last for the favour of his name.*

Mr. Cooke, *Surgeon, of Prescott Street, announces his intention of shortly favouring us with "some Cases and Dissections of Hydrocephalus." Communications respecting this disease, from accredited sources, will always be especially acceptable.*

Johnson *on the Atmosphere,* Newnham *on Inversio Uteri, and other works, are intended for review in our next Number.*

Erratum.—In the paper by Mr. Atterbury, of *Eyncsbury,* in vol. ix. page 370, the place of residence is called *Gynesbury.*

Communications are to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

No. 56. AUGUST 1, 1818. VOL. X.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Observations on some Apparent Failures of Vaccination, and their Causes; with Strictures as to the Management necessary to their future Prevention. By J. FOSBROOKE, a Member of the Profession.

"Even now some practitioners seem ignorant of what is necessary to constitute constitutional cowpock."—EDIN. REV. vol. xv. 329.

IT is to be regretted that vaccination, after it had been so investigated as to have acquired almost universal confidence, should again be called into question, and that doubts should be excited by some unsatisfactory events which have taken place within the last twelve months. Variola has recently prevailed to a much greater extent during the last spring quarter than for many years previously; and it has fallen to my lot in many places to learn that persons who had been secured, as it was expected, by what was termed vaccination, had been susceptible of this contagion. Some of these have received it even in its aggravated, but others (undoubtedly the majority) in the mitigated form. One family, consisting of five or six children, passed through the pure small-pox with severe symptoms, in consequence of variolation after vaccination. These assertions are corroborated by the observations of others. Mr. Kidd (*vide* Edinb. Med. Journal for April, 1818,) says, "In

Ireland cases of small-pox appeared in greater number than I had ever before witnessed, even previous to the valuable discovery of Jenner. A great number of those attacked were *reported* to have been formerly vaccinated: at Londonderry, in particular, great numbers, who were *said* to have undergone vaccination, were the subjects of small-pox; and, whether justly or not, vaccination has in that part of the country lost much of its credit as a preservative against small-pox."

In the cases which I have alluded to, and numerous others, the patients and their friends steadily maintained that they had undergone vaccination with its regular appearances, which have led to a serious inquiry and review of these circumstances, and have given rise to what I am about to submit to public attention. It was at a period when earnest apprehensions might be entertained for the future fate of vaccination, that a consultation of physicians in a western county concluded their deliberations without having offered any explanation to their neighbourhoods, which seemed certainly desirable in order to check the unfavourable notions generally professed, and the rapid resort to variolous inoculation. I believe that these sittings concluded with decisions even indecisive as to the reputation of vaccination; but it was more than all painful to see the opportunity which an unexpected opprobrium gave too much license to, seized by some individuals in order to exasperate the uninformed resentment of the community; such individuals assuming the garb of earnest attention to the interests of the community, when there was too much reason to suspect, in some instances, pure personal feeling, rather than actual conviction and public spirit. While these occurrences passed under my own cognizance, I formed the resolution to persevere in a diligent application and search for every cause from which those unhappy and unlooked-for failures could arise; predetermined to subject vaccination to the severest scrutiny, and to reject or adopt it conscientiously, by counterbalancing proofs for and against; not so much for the sake of controversy and meeting opposite opinions, as to attain the knowledge of right. These remarks, it will be hoped, will not argue a presumptuous disposition, when I preface my further observations by assuming, that I have pursued an unprejudiced course with respect to vaccination and variolation; and I regret that the facts and demonstrations, which have led to a satisfactory conviction of the irreproachable excellence of the former, are not of so notorious a nature as to render discussion superfluous. In order, therefore, to ascertain the real state of things in reference to vaccination, I solicit a few pages of the Repository for the following discussion, having made

extensive research into the merits of the case, and having had the advantage of personal conferences with the illustrious discoverer of this substitute for variola:—"It does not appear, says the Report from the Jennerian Society for 1806, that a single instance has occurred of small-pox subsequent to the cow-pock, during more than five years' practice at this Institution." And nothing in the regular Report for 1818, as far as I have seen in an abstract, contains any thing unfavourable conveyed to this grand national establishment*. It would be desirable that the vaccine was so simply and completely potent, as appears by many to have been conceived; but nothing is given to us with those perfect advantages, which supply and supersede by its own invariable course the absence of human direction.

For the information required, my literary research has been principally confined to periodical publications and tracts; but on all those points which we have, till of late, thought of diminutive importance, little has been said excepting cursorily, and not sufficiently enforced by the authors of systems. I repeat, that there has been nothing published in which I have not seen very important points touched on loosely: at an early period the main questions of the controversy, and some theoretical matters then in dispute, alone seem to have been agitated as matters of importance. I believe much of the results of later experience have not been assiduously communicated through public channels. They who may take up the early treatises in their search for information, may confide too easily in the opinions which they inculcate, and conceive many errors likely to induce faulty practice, such as have since been exploded as the inexperienced inductions of immature investigation. I do not think under this view a compendious account will admit of the construction of a superfluous undertaking; but that it will be considered as nearly connected with human happiness. It will be the endeavour of the writer rather to acquit himself as an eclectic of the peremptory cautions of others, than as an advancer of any thing newly and carelessly ascertained. Excluding every thing irrelative to practical purpose, I shall concisely contract into a focus all that has been said illustrative of the spurious

* I have since received the full Report of 1818, politely forwarded by Dr. Harvey. They had received accounts of failures "not only in various parts of this island, but likewise in Ireland." A very extensive investigation was undertaken by the Directors of the Cowpock Institution, Dublin; and the communications reported "convey the most decided conviction of the efficacy and utility of vaccination in preventing small-pox."

and genuine vesicle, observations on lymph, the mode of vaccination, tests, superaddition of variolous inoculation, &c. as methodically as possible, in order to give facility to reference and generalization.

The vaccine vesicle has been so often described, as to supersede the necessity of repetition in this place. Dr. Bateman, however, after a very accurate description in his popular synopsis of cutaneous diseases, remarks, " that a vesicle, possessing these characters, and passing through these regular gradations, whether accompanied by any obvious disorder of the constitution or not, *effectually* and permanently secures the individual from *the danger*, and *almost universally* from the contagion of small-pox." Dr. Tierney, (the present eminent physician in ordinary to his R. H. the Prince Regent,) in an elegant inaugural thesis, 1802, seems to have asserted the same very exceptionable position as Dr. Bateman. " Indeed," says he, " the desired change in the system may be considered to have taken place for certain, if the pustule has gone through its *stadia* in the accustomed manner." Dr. T. was not then aware of the application of a test. I must remark, that Dr. Bateman, however qualified he may be, has too affirmatively laid down a misconception: these appearances are enough, in many instances, to justify the belief, that the disease has effectually imbued the constitution after such gradations; but they should never form, however perfect their aspect, the only criterion; for there does not exist a doubt but that small-pox has sometimes supervened, after every apparent regularity; without danger, it is true: that under circumstances very unfavourable to the constitutional progress of the disease, a contrary belief was sanctioned by appearances, is what I am prepared to show hereafter. Dr. Bateman, however, recommends the precautionary test. How far the course of a morbid poison, in the parts subjacent to the puncture, is necessary to the due formation of this indicative phenomenon of the skin, is impervious to human view; but we do not think they always co-operate: the symptomatic pyrexia, which frequently attends vaccination, perhaps infallibly denotes absorption. Dr. B. proceeds: " there is no uniform appearance which is characteristic of imperfect vaccination; on the contrary, three varieties of irregularity have been noticed; namely, pustules, ulcerations, and vesicles of an irregular form. The *pustule*, which is sometimes produced instead of the proper vaccine pustule, is more like a common festering boil, occasioned by a thorn, or any other small extraneous body, sticking in the skin, according to Dr. Jenner; and it throws out a premature efflorescence, which is seldom circumscribed. It is, as Dr.

Willan has stated, of a *conoidal* form; and raised upon a hard inflamed base, it extends rapidly from the *second to the sixth day.*" Ulceration, of course, requires no remarkable delicacy of eye to distinguish from perfect vaccination.

" With respect to the *irregular vesicles*, which do not wholly secure the constitution from the small-pox, Dr. Willan has figured three sorts. 1. A single pearl-coloured vesicle, set on a hard dark red base, slightly elevated. It is larger and more globose than the pustule above represented, but much less than the genuine vesicle: its top is flattened, or sometimes a little depressed, but the margin is not rounded or prominent. 2. The second appears to be cellular, like the genuine vesicle: but it is somewhat smaller, and more sessile, and has a sharp angulated edge. In the first, the areola is usually diffuse, and of a dark rose colour; in the *second*, it is sometimes of a dilute scarlet colour, radiated, and very extensive, as from the sting of a wasp. The areola appears earlier round these vesicles, on the seventh or eighth day after inoculation, and continues more or less vivid for three days; during which time, the scab is completely formed. The *third* irregular appearance is a vesicle without an areola.

Dr. Tierney has remarked, as well as many others, that the spurious pustule is more rapid in its progress, the inflammation appearing on the second day. The premature advancement was pointed out by Dr. Jenner, as a characteristic of the irregular pock. Mr. Rigby, in his Norwich Pauper Vaccination Report, states that one single instance of failure took place, out of 2391 individuals: this was clearly ascertained to be a case of premature vesicle. The colour of the scab in the genuine is brownish, in the spurious whitish, and of a cellular texture, says Dr. T. In the former the areola is *always* present, and in the latter *never*. He also mentions instances in which the disease assumed the true character for the first five or six days; but, after this period, it deviated from the circumscribed and circular, into the uneven and spreading (serpentine) form, and the colour of the crust differed from the true. This observation is so accurate as to deserve particular attention. I have seen many such cases, and also of the conical, irregular, straw-coloured pustule, described by Drs. Bateman and Willan, without the erythematous zone.

Mr. G. Jenner relates his having seen the perfect and spurious co-existent on the same person, and recommends, on these occurrences, re-inoculation. Persons who have previously had small-pox, (*perhaps imperfectly,*) derive spurious pustules from vaccination. In some cases I have seen the vesicle so exuberant, as to burst spontaneously, and the " lympha fugax" of a sub-diaphonous kind discharged itself:

this was suspicious, and re-inoculation of course was adopted, but it generally proved that the first was sufficient.

" A vesicle, apparently regular at first, sometimes does not increase to the proper size, but dies away prematurely." This is stated in the instructions, and is a circumstance generally observed.

Dr. Paterson has rightly said, " that all anomalous cases, not only from their being susceptible of great variety, but as it may, at least for a time, be exceedingly difficult, nay, impossible, to distinguish the efficient from the inefficient ones, ought to be considered as suspicious." It is certainly, however, necessary to know the spurious disease, " lest people go on vaccinating, without securing any of their patients against variolous contagion." This was the case in the early practice of Drs. De Carro and Tierney, and some fatalities ensued.

We now proceed to the consideration of lymph. Lymph may be taken from a vaccine or variolous pustule, in a person not constitutionally affected with either, which will produce the genuine disease. Dr. Harrison, in vol. 5. of Bradley's Medical Journal, p. 119, gives an interesting case of this. A very fair proof of what I have before said, that genuine lymph may be secreted in a regular vesicle, without constitutional affection.

It is a rule in vaccination, that lymph is to be taken between the fifth and ninth day, and *never* later. Dr. Bateman says after the twelfth: but at this period, unless in some very slow cases, the inflammation is too much extended. Neglect of this not only frequently produces an inefficient disease, but malignant indisposition, and affections of various kinds. A Mr. Irving (see Bradley's Med. Journ. vol. viii. p. 545.) talks of foulnesses left in the blood by the use of impure or vitiated matter; and in the Copenhagen Report, where eruptions of the skin frequently followed vaccination, Dr. Jenner thought that the " virus must have undergone some change;" that he had never seen any cases of eruptions, excepting a slight rash, like the tooth rash, after the use of pure lymph. Cases of innocuous eruptive appearances after cow-pock, have, as I have witnessed, occurred in this country; but it was probable that there was a diathesis of the patient, which gave rise to them. How far the morbid nature of impure lymph, absorbed into the system, may affect the circulating fluids, and again such an affection re-act on the skin, or whether it is an irritation idiopathically affecting the skin, are theories which I am not prepared to discuss*.

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* Dr. Tierney assigns some of these cuticular defœdations to the state of the alimentary canal, or dentition in infants.

The disease, generally, says Dr. Tierney, proceeds slower, from lymph long kept; that it is less energetic, is commonly known; thence arises the prudence of transferring the fluid lymph from one healthy subject to another, with as little delay as possible. Lymph, the doctor continues, ought not to be carried about the person; every adventitious medium of elevated temperature is to be avoided. Dr. Jenner related an instance, where lymph had been used, which was rendered impotent by the application of a lancet carried in the pocket of the operator. Whether this is owing to decomposition, is difficult to say: some assert, that the vaccine virus possesses volatile properties, the presence of which are necessary to its essential powers. Mr. G. C. Jenner says, an imperfect pustule now and then arises from the use of virus previously dried too hastily by the fire.

Lymph is rapidly neutralized by the heat of warm climates. Professor Waterhouse, in America, says, that the vaccine virus retained its activity three months, when the mercury ranged betwen 40 and 70 degrees of Fahrenheit, but will lose its virtue when exposed ten or twelve hours to the temperature of 95 or 96 degrees; thence he preserved it in a vase of cold water. The admirable Baron Humboldt mentions a curious fact in his Political Essay on the Kingdom of New Spain. "A merchant vessel, Santo Domingo de la Calzader, put into Lima, in the passage from Spain to Manilla. An individual had had the good sense to send by this vessel vaccine matter to the Phillippine Islands. They availed themselves of this opportunity at Lima; and M. Unanue, Professor of Anatomy, and author of an excellent physiological treatise on the climate of Peru, vaccinated several individuals by means of the matter brought by the merchant vessel. No mistake appeared; and the virus appeared either altered or too weak. However, M. Unanue having observed that all the vaccinated individuals had a very mild small-pox, employed this variolous matter to render, if possible, by the ordinary inoculation, the disease less fatal. He thus perceived, in an indirect way, the effects of a vaccination supposed to have failed." It is probable, that vaccine lymph, newly *effete*, would not have produced this effect in a more temperate climate; but the susceptibility of contagious disease in the torrid zones, is proved to be so great, by the numbers that perish simultaneously of small-pox, that we can readily account for this action of specific contagion, which, under other circumstances, would have been abortive. The plan of variolating from small-pox after cow-pock, in order to produce a milder disease, would be excellent, if it were necessary.

Lymph should be defended by all modes of preserving from exposure to insolation, or the external atmosphere.

It has been a common practice to charge the point of a lancet. This, however, is apt to become oxydized, and the virus inert.

A writer in vol. 6. of Bradley's Medical Journal, says, that the characteristics of the disease, formed by superannuated lymph, is generally so imitative of the genuine, as not to be discriminated, unless by the earlier separation of the scab.

The three most frequent modes of preserving vaccine fluid are, on two small plates of glass, the sides of which exactly conform to each other, on bone or ivory points, or vaccinators, and, with the view of permanent fluidity in tubes, open at both ends, and in Girard's ball tubes. As to the mode of collecting the matter, I have only to offer some accessary remarks. Dr. Jenner adopts the glasses: he informed Dr. Marcet, that lymph, *taken at a proper age* of the pustule, kept seventeen weeks: he advises it to be kept in a place of medium temperature, and at no time to be exposed to heat, or carried in any receptacle about the person, or placed near a fire. It has occurred to me, that if on whatever it was charged, it was kept in a stopple bottle, surrounded by water, or any non-conducting enveloping medium, at one temperature, its preservation in an effective state would be more certain, and of longer continuance. The virus should be taken only once from the same subject, says Dr. Tierney, and should be moistened by the steam of water, at a cold degree, but not diluted. A lancet should be used exclusively for the purpose, in order that it may neither receive the matter of any foreign disease nor ulceration, nor communicate the vaccine, accidentally, in other operations.

As to the points or vaccinators, they fail in the majority of instances. A learned ex-professional vaccinist has offered a conjecture, that the lymph might be rendered inefficacious by an exertion of chemical affinity for the phosphate of lime of the bone.

Mr. Girard's tubes are ingenious: their superior object was to export lymph in a fluid state. The agency of heat by immersion of the ball in hot water, or holding in the flame of a lamp, in charging and discharging them, is objectionable; thence I advise the capillary tubes, open at both ends, and simply requiring application of either orifice to the exuded globules to charge them; and a straw, or a blowpipe, to expel the lymph. I have some of Girard's tubes, charged in this manner, now by me: the lymph is in some measure thickened into a creamy consistence, but certainly more humid and convenient

for use than the lamellated cake which it forms on glass plates. The Report of the National Vaccine Establishment for 1818, speaks favourably of their utility in the exportation of lymph.

The use of the dry scab has been suggested: the scab which succeeds a vesicle is remarked to be more hard and compact than the scab of a pustule, and of a different colour, therefore consisting of the diaphanous lymph, not absorbed, (see Ed. Med. Journal, vol. iii. p. 370.) "Virus in the crust is said not to be deteriorated, though it may be so in the matter surrounding it:" if so, I should conceive there are particular parts of the scab, from which we may vaccinate at any period of the disease; but there are hardly ever in this country emergencies which would render this necessary. Mr. Woolbred, superintendant of the Vaccine Establishment, Bengal, made use of the desquamated scabs successfully. It has been sanctioned and recommended by the surgeons of the Vaccine Institut. Edinb. and by the board of the National Vaccine Establishment.

We are next to proceed in the investigation of peculiarities, which are physically attached to the patient, and which act as preventives to the due reception of the disease: these are particulars which certainly demand more attention than hitherto has been given them.

(*To be Concluded in the next Number.*)

II.

Remarks on Cranioscopy. By Henry Ronalds, M.D. Member of the Royal Medical Society of Edinburgh, and Member of the Royal College of Surgeons of London.

"We will not say that there are any facts which demonstrate that the brain is not the organ of intellect; the subject is still involved in the utmost obscurity."

The science of craniology, or cranioscopy, having of late years excited a considerable interest, not only amongst professional men, but in the minds of the public in general, a few remarks on this new method of philosophical reasoning may be not unacceptable to the readers of the Repository.

The authors of this new system commenced their career by classing together the heads of those of their acquaintance resembling each other in their dispositions and intellectual propensities; and by extending their observations, they conceived that there were uniform marks or prominences in such

characters as possessed similar dispositions or intellectual faculties. Thus the brain was regarded as a collection of distinct organs, to which the several propensities and appetites of the animal economy were referrible. The superior development, or strength of these organs, it is said, causes one person to excel in music or poetry; another becomes distinguished as a lawyer or a politician; while a third is disgraced by the commission of theft or murder. "These dispositions may in some measure be further developed by education and connexion with the world, but can by no means be created by them; or certain organs, which would be prejudicial to the individual possessing them, may in a great measure be repressed. For instance, if a young man has a melancholy turn of mind, full of nervous sensibility, conscious, scrupulous, in whom also the organ of theosophy was found, Gall would recommend him not to follow the bent of his inclination, the profession of divinity, but to lead an active life, and to mix much in gay society; and this he asserts would effect a change and permanent cure *".

From this outline it appears, that not only is the brain regarded as the general receptacle of a determinate set of innate faculties, which exert their influence on the animal economy, but a precise spot is demonstrated in which is seated each faculty, capable, exclusively, by a further development, of exhibiting remarkable peculiarities in the human character.

The first question that presents itself to the inquirer into this system relates to the appellation of the science, a doubt arising of some importance to our subject, whether it should be denominated craniology or cranioscopy. Concerning the former term, we must first understand the brain as distributed into the several organs of intellectual life, and then endeavour to verify this acceptation of terms by an examination of the elevations or risings on the skull, caused by the impression of these organs. Under this point of view the whole doctrine rests upon Dr. Gall's assumption, that the brain *is* distributed into organs. He gives no proof of this which can convince an impartial mind: upon nearly a bare assumption he grounds all his subsequent reasonings.

In the use of the latter term, viz. cranioscopy, the science comes before us in a more tangible shape, as it commences by demonstrating these protuberances, and then finding corresponding intellectual phenomena. Under the impression that this is a more correct view of the subject, and as Dr.

* Edinburgh Encyclopædia, vol. vii. page 322.

Spurzheim himself founds his system on the anatomical and physiological examination of the nervous system and brain, it appears that the science is capable of experiment and demonstration. To accomplish his object, Dr. Spurzheim meets with many difficulties to encounter; and we cannot deny him considerable learning and a laborious spirit of investigation; yet it must in truth be declared, that although arguments opposing as well as favouring his theory are fairly quoted in his work, still he is determined at all events to build up a system, and that by reasonings which are sometimes at variance with positive fact.

I am aware that a very able criticism upon this newly invented science has been accomplished by my friend Dr. Gordon, of Edinburgh; and have therefore no intention of entering the beaten path of controversy: I venture only a few physiological remarks in opposition to a theory which seems not deduced from well established observations.

1. The histories upon record of large accumulations of fluid in the brains of living animals, and the organic diseases to which the brain is occasionally subjected, appear to me to weaken the theory that the several portions of this organ are the seat of the intellectual faculties: in other words, that the individual portions of the brain are exclusively the seat of animal and automatical life. We are informed by the most eminent writers on the physiology of the brain, that very severe wounds may be inflicted on this viscus without causing death, and that portions of its substance may be lost. The records of medicine are full of instances of this kind. Baron Haller adduces many cases detailing the loss of the cineritious matter, the part in which the organs are said to have their seat, while the intellect remained unimpaired. According to Professor Richerand, the cortical substance seems less essential than the medullary; the former is almost insensible, and large portions of it may be removed without danger of life, as is occasionally seen in certain wounds of the head, accompanied with injury of the brain. The investigations of M. Le Gallois tend to prove, that the principle of sensation is decidedly not seated in the brain. Large portions of the brain were sliced away from living animals, apparently without the loss of sensation. But to proceed farther, it is certain that animals and human beings have existed for no short period, in whom nearly the whole cavity of the skull was filled with fluid, leaving scarcely any traces of brain. A short detail of cases will show that every part of the brain, consequently each organ, has, in its turn, been known to be injured or destroyed, without injury or loss of the intellectual faculties.

Sir Gilbert Blane* relates the history of a tumor which occupied the situation of the pineal gland: it was hard, and of the size and shape of a nutmeg, and about half an inch in diameter. The chief symptom of complaint by this patient was an excruciating pain, chiefly confined to a spot on the occiput.

Dr. Bateman† reports the case of a child of five years, in whom after death the posterior lobe of the brain was nearly filled with a globular sac, of strong texture and of considerable thickness, containing about four ounces pure pus. In these two cases the intellectual faculties were unimpaired.

In the "Journal de Medecine," a case is related by Dr. Merat, of tubercles in the brain of a scrofulous subject. Behind the superior part of the medulla oblongata a fatty substance was discovered of the size of a walnut, of a rose colour, and penetrated by small blood vessels. Another tubercle, not quite so large, was found in the middle of the left lobe of the cerebellum.

A lady having suffered under an affection of the head for nearly a fortnight, became comatose, and died. The day before her death, however, she was capable of being roused from her stupor, and was then in possession of all her senses. Yet on dissection it was found that the left hemisphere of the cerebellum was converted into a bag of purulent matter‡.

The case of a man is detailed by Mr. Earle, in whose brain an abscess was discovered occupying nearly one-third of the substance of the right hemisphere. In this patient the sensibility remained unimpaired until within a few hours of death‖.

Diemerbroeck mentions the case of a man who died without exhibiting insensibility until the moment of his death: yet an abscess, containing half a pound of matter, was found in the upper part of the brain. But a still more remarkable instance is recorded by the same author, of a young man who received a thrust of a sword in the inner angle of the eye. For ten days after the accident this young man remained quite well. He was then seized with fever, which carried him off in two days; and on dissection it was found that the sword had entered the brain, penetrating through

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* Medical and Chirurgical Transactions, vol. ii.

† Edinburgh Medical and Surgical Journal, vol. i.

‡ Edinburgh Review, vol. xxiv. page 444.

‖ Medical and Physical Journal, vol. xxiii.

the right lateral ventricle, to the upper margin of the occipital bone, which it had almost perforated*.

The following is an instance of the loss of a quantity of the brain which was successfully treated†. A boy received an injury of the head, and the case presented symptoms which induced the surgeon to suspect a fracture. His conjecture proved correct, and the cavity formed by the deepest part of the fracture was filled with protruded brain: about the bulk of a walnut, consisting both of the cortical and medullary substance, was lost. After the operation of trepanning, the boy became more lively, and gradually recovered.

Another case, detailing the loss of substance of the brain, occurred to Billot, and is related by the celebrated Planque‡. A boy received a pistol-shot in the head, which entered exactly in the middle of the brow, and passed through the cranium to the occiput. He survived the accident eighteen days; and although a portion of the substance of the brain, equal to the size of a nutmeg, was discharged by the wound every day, he remained quite well until within a few hours of his death, when he fell into a state of stupor. On opening the head, the surgeon was surprised to find that not more than the bulk of a small egg of the proper substance of the brain remained.

An instance in which the whole brain was wanting, without loss of sensibility, is related on the authority of Dr. Quin‖. A child was born with a very large head; but seemed well in health, increased in strength, and grew fat. The head, however, soon became so large as to leave no doubt that there was disease going on within. Still the child increased in size, took food, and grew strong in his limbs. He could both hear and see well, and thus he continued until he was eighteen months old, when he died suddenly without any convulsive attack. On opening the cranium more than five quarts of very limpid water were found within it; but there was not the smallest trace of membrane, or of brain, except opposite the orbits and meatus auditorius, where something like medulla still remained.

The next is a case of very extensive injury in the brain, and related by Mons. Chizeau§. It occurred in an infant, in whom, although the symptoms were very urgent, yet there was no loss of sensibility. On opening the cranium, at the

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* Hist. Apoplect. and Anat. quoted by Edinb. Review, vol. xxiv.

† Edinb. Medic. and Surg. Journal, vol. xii.

‡ Bibliotheque de Médecine, tom. iii.

‖ On dropsy of the brain.

§ See Medical and Physical Journal, vol. iii. page 71.

moment of separating the occiput, a quantity of limpid water issued forth. The left hemisphere and ventricle of the brain were perfectly sound, but the dura and pia mater were thick and inflamed in the part corresponding to the right hemisphere. The cortical substance was sound, and interspersed with spots similar to those of an inflammation; but the greatest ravages had taken a deeper seat. The whole of this hemisphere was one purulent mass, and had not the smallest trace of its natural organization*.

In the case of tumors and small abscesses occupying portions of the brain, it would be natural to expect, if the new system were well founded, that those organs of the brain would suffer most which lay contiguous to such tumors. It is well known, however, to every medical practitioner, that the whole sensorium commonly suffers in any partial pressure of the cerebral mass. I remember seeing in one of the London hospitals a case of hernia cerebri, or an exuberant protrusion of the brain through an aperture of the skull. The tumor was of the size of the largest walnut, and the patient lived under the usual treatment for a number of weeks; but the event proved fatal. A very remarkable instance of hernia cerebri occurred lately in St. Bartholomew's hospital, and is recorded by Mr. Stanley†. A boy fell from a two-pair of stairs window, and severely fractured the middle part of the frontal bone. The operation of trepanning was performed, and every thing went on well. On the seventh day there were no alteration of the symptoms, but on dressing the wound there was seen projecting a soft substance. When pressure was made on this protrusion, no pain was produced, nor was the sensibility of the boy affected. A small dossil of lint was applied to this tumor, and a moderately firm pressure was made. The patient's health continued good; but in a few days, on dressing the part, it was found, that although the pressure had diminished the height of the swelling, yet that it increased in size laterally, and was about twice as large as on the previous day. Under the impression that the tumor was formed of protruded brain, its upper part was pared off. But still, notwithstanding the application of firm pressure, the protrusion was evidently increasing. Since it appeared that pressure alone was inadequate, the whole mass down to the level of the skull was

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* A detailed history of injury and disease of the brain will be found in the Edinburgh Review, volume xxiv. from pages 441 to 446. In the majority of these cases it appears that the sensibility was unimpaired.

† Medico-Chirurgical Transactions, vol. viii. page 20.

removed; and the portion cut off consisted wholly of medullary substance. Just at the time the scalpel was passing through the tumor, the boy complained of pain, which immediately ceased. The patient's health still continued good, and in a short time he completely recovered. In these cases, the advocates for craniology would expect that the organs corresponding to the portion of diseased and protruded brain, would be exclusively deranged; yet, certainly, no such derangement of the intellectual faculties existed.

Other examples of disease in the encephalon and bones of the head, are to be found in the disease called Cretinism. This disorder almost exclusively exists in the vallies of Switzerland. It consists in nearly perfect idiotcy, accompanied with an impaired organization of the bones of the head. The victims of this singular disease are not far removed from the brute creation, as to their sensual gratifications. From the dissection of the skull of a Cretin, it appeared that the cavity for the pons varolii, and medulla oblongata, was completely obliterated; and that in which the cerebellum was lodged so much diminished, that it scarcely exceeded one third of its natural capacity. Notwithstanding this great derangement of the brain and skull, it does not appear that the organ of sexual love, which is assigned to the cerebellum, was less conspicuous.

It is far from my intention to suggest that an injured or vitiated state of the brain is not frequently accompanied with proportional imbecility in the intellectual faculties; and perhaps the affection called Cretinism, which shows itself in all the intermediate stages, from stupidity, to a total loss of the powers of the understanding, affords one of the best examples of mental deterioration being produced by diseased structure. But experience teaches, that not any faculty of the mind is exclusively deranged by a morbid state of the brain.

(*To be Concluded in the next Number.*)

III.

Cases illustrating the Benefit arising from the Use of the Knife in Hæmorrhoids. By George R. Rodd, Member of the College of Surgeons.

Mr. Kirby, of Dublin, having recently called the attention of the profession to that loathsome, painful, and mischievous malady, the piles, mentionmg the shyness of practitioners generally, as to operating upon them, and recommending a

mode of excision of the parts elongated and thickened, from the verge of the rectum. I wish to mention two cases which fell under my care, some time previous to his publication, which, though not treated exactly in the same manner, serve to show that the knife is the only effectual relief. The first case was a sergeant who had been many years in the West Indies, during the whole of which he was afflicted by this disease, losing blood constantly at each evacuation, suffering stranguary, and tenesmus, and at last was invalided: he was made, on his return home, an out-pensioner of Chelsea Hospital, and came to reside at Hampstead, where I first saw him. I found him stretched on his bed, which he had kept for a considerable time, a poor emaciated object, sallow and cadaverous in appearance, from the pain and loss of blood; his pulse quick and feeble; and he earnestly entreated me to proceed to any means I thought proper for his relief, as his life was become burthensome, from continual suffering. As, he said, the surgeons of his regiment had refused to operate upon him, and that at Chelsea they had concurred with the impropriety of it, I thought that some organic disease, independent of hæmorrhoids, might be in existence, which might prevent the success of the knife; but on attentively watching him for some time, I could not discover any thing to prevent it. I therefore determined to have recourse to the operation. I placed him leaning across a narrow table, with the buttocks elevated, the abdomen resting upon a pillow. There were two fleshy tumors of somewhat an elliptical shape, situated on each side the verge of the anus, and on the protrusion of the gut; several tumors of a very different nature on the inner surface of the rectum, and parts near the sphincter: these latter were soft, of a reddish colour, highly irritable, and easily bleeding upon pressure, and evidently very painful to the touch. As the bowel was at this time protruded, I cut off two of the largest with a scalpel, assisted by a dissecting hook: much pain was occasioned, and the parts receded, but no hæmorrhage occurred. I now raised the tumors situated externally, which being more fleshy than the others, required a firmer pressure of the knife to remove them; but no blood of any consequence followed the operation: cold saturnine applications were made use of, and the man passed a tolerable night. The next morning he had a motion, which was attended with many of his usual symptoms, such as tenesmus, heat, and distress, in making water; but as the inflammatory symptoms, consequent upon the use of the knife, subsided, these affections also disappeared, and in about four or five days the parts began to heal. Shortly after this, the bowel protruded, and another tumor appeared, which the man wished

to have taken away, but requested it might be done by any other means than the knife. I thought it a fair opportunity to try the effects of a ligature. I included the tumor in a small silken thread, which immediately caused severe pain, which never ceased for twenty-four hours, though cold and warm applications in succession, with opiates externally and internally, were used. I felt a doubt whether it would be safe to let the ligature remain: the uneasiness, however, beginning to subside, I left it, and in four days after it came away with the tumor: but I shall not readily repeat the operation, on account of the torture which it produces. I now kept the bowels gently lax, and gave tonics, with the use of a strengthening diet; and in a very short time he began to regain his bodily vigour, so that in a month he walked the distance of ten miles with ease. He has since left the place; but he called upon me some time afterwards, to say he was in perfect health, and that he felt no inconvenience from the operation.

The other case was a gentleman who had suffered for many years from this disease: he had lived freely, and had lost much blood occasionally from the tumors, but was still full in habit. He had tried a round of palliatives, under different gentlemen of eminence; but no one had proposed any operation. He was incapable of taking much exercise on foot, and had given up that on horseback altogether when he consulted me. I mentioned the other case; when having considered it, he consented to the operation. The bowels were evacuated, and on bearing down a little, a slight protrusion took place, discovering several tumors, like mulberries in colour, and almost in general appearance: two of the largest I cut away with a pair of scissars, and a hook: he experienced a sharp pain, but unattended with hæmorrhage: there were two large fleshy tumors externally, one of which I removed with a knife; but he would not consent to have the other taken away: he suffered a sharp pain, with tenesmus, for some hours; but with cold applications, and opiates, the parts were appeased, and were healed in a few days, and he experienced more relief than he had done since the commencement of the disease. But this cure was not so permanently successful as the other, as he lived irregularly, and the tumor left behind became very irritable in the course of about twelve months, and many of the distressing symptoms returned; but as he had also a stricture of the urethra, it is questionable whether many of the present symptoms were not connected with it. From these cases, as well as those of Mr. Kirby, it would appear that the external

tumors are the principal source of the mischief, though the loss of blood seems within the anus. But in the first of these cases, the external tumors were all removed, and the case completely cured. In Mr. K's, also, the elongated skin without the verge was removed; and on examining the rectum at different intervals afterwards, no appearance of disease remained. From this we might infer, that the internal tumors were destroyed, and their further growth prevented. This operation, at first, appears the more formidable, both from the pain and the hæmorrhage, which is necessarily more likely to occur, on account of the larger substance being divided, than when the simple tumors are removed in succession: but the general success of his operations speaks much for their superiority. At all events, it appears, that in all cases where piles have long continued, are very painful, and discharge much blood, the only chance of effectual relief is by an operation of one kind or other; and every case published by Mr. Kirby, and the other gentleman he has quoted, as well as those now brought forward, serve to show that palliatives are useless in extreme cases, and that the tumors may be removed without any hæmorrhage but what may be easily commanded, without danger, and, in general, with a prospect of complete and permanent cure.

Hampstead.

IV.

On the Use of the Sub-borate of Soda in Cancerous and Scrofulous Affections. By a Medical Practitioner, whose Name and Residence are known to the Editor.

Although disappointment has hitherto pretty uniformly marked the progress of experimental inquiry, in the medical treatment of *cancer*, yet I take it for granted, that any mean calculated to control the violence of the symptoms, or arrest the progress of that terrible malady, will be considered worthy the attention of the profession; and the more especially so, if the application of that mean has been sanctioned by a moderate share of success.

Under this conviction, I take the liberty of communicating a few *facts* and results, connected with the use of the *sub-borate of soda* in *cancerous* and *scrofulous affections;* and which have occurred in the course of my own practice.

I shall do little more on the present occasion, than briefly detail the very simple plan which I have hitherto pursued;

and state, in a general way, the issue. Should this excite sufficient attention, and lead to experimental inquiry, and the result prove as favourable as I am inclined to cherish a hope that it may, it is my intention, at a future period, to give a more enlarged account of the *sub-borate of soda*, and the success with which its use has been attended in other morbid affections, as well as those above mentioned.

It is now about sixteen years since it first occurred to me to employ this article, as a topical application, in *external cancer:* the first three cases were cutaneous (of the lip): in each of these, the following was the only mean had recourse to:—

℞ Sodæ. borat. ʒij.
Aquæ. distillat. (tepid) f. ℥vj. ft. solut.

A soft pad of fine old linen, or lint, was charged with this solution, applied over the ulcerated surface, and renewed as often as it became dry. In a very short period the ulcerations, in all the three cases, were completely healed, and no visible morbid symptom was left behind. One of the patients was a miller, and the other a baker.

About eight years ago, I was consulted in a case of *cancerous mamma:* the patient was a single lady, between fifty and sixty years of age, and of a corpulent habit: the breast was greatly enlarged, and firmly adhered, throughout its whole extent, to the subjacent muscle: the cutaneous vessels of the affected part were varicose, and the nipple retracted: the ulceration was of an irregular circular form, about three inches in diameter, the edges jagged, tumid, and averted: a considerable (I might say profuse) discharge of corrosive sanies, which excoriated the surrounding cuticle, was constantly thrown off. In the centre of the ulcer was a cavity, apparently an inch in depth, the aperture of which was nearly large enough to admit the end of a finger; and from this cavity, repeated (and sometimes alarming) hæmorrhages took place: severe darting pains were experienced through the tumor, and the axillary glands were considerably enlarged, and painful to the touch.

More than one surgeon, of the first respectability, had been consulted in this case, and each had given it as his decided opinion, that the disease was too far advanced to admit of an operation with any probability of success.

Discouraging as the prospect was, I thought it worth while to attempt to mitigate the severity of the pain, correct the acrimony of the discharge, and prevent the recurrence of hæmorrhage; and indulged a hope, that the attainment of these ends was within the compass of possibility. The following comprises the plan of local treatment adopted:—

℞ Sodæ. borat. ʒss.*
Ext. hyoscymi à ʒij. ad ʒiij.†
Aq. rosæ. oj. ft. solut.

The *sub-borate of soda*, and the ext. hyoscyami, were dissolved in a few ounces of the aq. rosæ, made hot, and the remainder added as soon as the solution was effected. The rose water was preferred in order to prevent the decomposition of the *sub-borate of soda*, and to cover, in some measure, the nauseous odour of the extract hyoscyami. The whole extent of the ulcerated surface was covered (as in the preceding cases) with a thick and soft pad of fine old linen, or lint, thoroughly charged with the solution, and which was renewed as often as it became dry: (in cold weather, and in tender habits, I used the solution lukewarm.) In the space of a few weeks, (I speak chiefly from memory on this point,) the ulcer was reduced to half its original size, the discharge assumed a comparatively healthy and purulent appearance, and no longer excoriated the surrounding sound parts, and the pain became trifling. In the early part of my attendance, the hæmorrhage occasionally returned, but was checked without difficulty, by a mixture, of equal parts, of the tinct. ferri. muriat. and spt. vini. applied on lint. No medicine was exhibited internally, save a gentle and occasional aperient; and as the patient resided at a considerable distance, my personal visits did not exceed five or six; and these were made within a short period of my being first consulted. Subsequently, when the solution was wanted, it was sent for; and from the messenger (an intelligent friend of the patient), as well as from her own written communications, I was made acquainted with the progress of the disease towards recovery. The last time I heard from her, the pain had entirely ceased, and the ulcer I judged (from the same account), did not exceed a third of its original size: whether it finally closed or not, I have not been able to learn. I cannot help feeling a persuasion, however, that had the management of the case been more immediately under my own eye, a still more conclusive result might have been obtained: imperfect as it was, the leading points which I had in view, in the outset, were gained; and I trust that I do not assume too much in supposing, that the facts stated are of some practical importance.

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* I have sometimes found it necessary to vary the proportion of the sub-borate of soda, as the solution cannot be borne of equal strength in every case.

† The ext. belladonnæ might probably prove an useful substitute for the ext. hyoscyami, but have not made the experiment.

The patient lived about six years after I first saw her, in comparative comfort, and died, I am informed, somewhat more than two years ago, of pneumonia.

For nearly twenty years past I have occasionally employed the *sub-borate of soda* in the proportions of ʒss. and ʒj. to ℥j. of cerat cetacei, or cerat lap. calam, as a dressing for *scrofulous ulcers*, and have not unfrequently found it the most efficacious application I am acquainted with. In some instances, the ulcers have healed in an unusually short space of time, after they had resisted every other mode of treatment.

Of the *internal* use of the *sub-borate of soda* in scrofulous affections, I can say but little: I have, however, given it to children of eight and nine years of age, in doses of ten grains, dissolved in aq. rosæ, three times a day, (with decoct. cinchonæ in the intervals,) and I fancy with some advantage.

It would be easy to extend this communication to a much greater length: aware, however, of the delicacy as well as difficulty of my situation, I hesitate to say on the present occasion all I think, or all I know of the sub-borate of soda, lest expectations should be excited which future and more extensive experience should prove futile and delusive; and thus bring into unmerited contempt and neglect a medical agent, which, from its approved utility in *other morbid affections*, as well as *cancer* and *scrofula*, deserves to be much better known, and more highly appreciated, than it is at present.

Let it not be supposed, however, on the strength of this statement, that I have any intention of recommending the *sub-borate of soda* as a SPECIFIC in *cancer*; I only propose it to the profession, as one of the most *efficient topical palliatives* with which I am acquainted, and one which (so far as I know,) has not been made trial of in the treatment of that terrible malady before.

In the present state of professional experience, in reference to *cancer*, I should not have ventured even thus far, but at the instance of a medical friend to whom I incidentally mentioned the leading facts above stated, and which he was pleased to think were deserving of being generally known. In deference, therefore, to the opinion of one who stands so deservedly high in the profession, (after a pause of many months, and with no ordinary feelings of reluctance,) I make this communication. Should, however, the adoption of the plan which it contains lead to the permanent relief of one hopeless sufferer from *cancer*, I shall not consider my time as having been spent in vain.

V.

Mr. Ring *in Reply to* Mr. Chapman*.

Mr. Chapman endeavours to silence an opponent whom he can neither convince nor refute. When he talks of an uncouth style, we should not expect him to make use of such a phrase as "*the citation of misapplied quotations.*" It is to be regretted that he did not make his charge good, and point out what those misapplied quotations were.

He has shifted his ground. In the first instance he asserted, that we were indebted to Dr. Parry for the knowledge of the fact in question: he now only contends that we are indebted to him for the knowledge of the principles on which this fact depends. The difference, however, is essential.

He says, I appear to be awake to the error which I committed. This is rather inconsistent with what he before stated. It is, therefore, to be wished that he had informed us what that error was.

When he talks of the folly of enthusiasm, and suspects me of too great a partiality for the name of Hunter, to that charge I plead not guilty. I have, indeed, great respect for the name of John Hunter, and great respect for the name of his preceptor, William Hunter; but I have given ample proofs of my not being a blind enthusiast. Can Mr. Chapman say the same? The fulsome compliments which he has paid to a celebrated living character say no.

He has not given us his authority for asserting that serum and coagulable lymph are synonymous terms, and signify the same material. He tells us serum is capable of being coagulated by heat, or by nitric acid; and that it has, on this account, also obtained the name of coagulable lymph.

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* We must beg permission to announce our determination to close the pages of the Repository against the prolongation of the present controversy. The points in dispute between Mr. Ring and Mr. Chapman involve indeed much that is highly interesting; and for us to speak of the talents of the disputants, and the obligations which both the Medical Repository and medical world are under to these gentlemen, were altogether superfluous. We are aware, too, that it is by discussion and disputation that truth is often elicited. But criminations and recriminations are not suited either to the taste of our readers, or consistent with the dignity and liberality of a learned profession. We feel utterly averse from the undue exercise of editorial authority; and it is to be hoped that our two respected correspondents will take in good part this unbiassed and impartial expression of our feelings.—Edit.

There is, however, a clear distinction between them. Coagulable lymph requires no such aid.

He says, I have not condescended to inform him and others, whether I have been in the habit of confounding the very distinct terms coagulable and coagulated. I am not conscious of being in the habit of committing such blunders; and it will be soon enough to repel the accusation when it is regularly brought.

Mr. Chapman professes ignorance of the diseases which prevail in the neighbourhood of Hanover Square, and it may reasonably be doubted whether his knowledge of those which prevail at Bath is very correct; for he tells us it commonly happens, there that apoplexy, palsy, epilepsy, and catalepsy, and a variety of other disorders, are produced, "*which may be fairly traced to augmented circulation in the vessels of the brain, without inflammation of that viscus.*" We may now, therefore, congratulate ourselves on the discovery, that logicians have hitherto been in an error, and that a negative is easily proved.

He specifies several causes of increased determination of blood to different organs, by cathartics, emetics, and narcotics, and by intoxicating liquors; and then remarks, that according to my theory, I must suppose a man who is intoxicated labours under phrenitis. If those arguments do not convince me, he gives me up as an incurable sceptic.

He wishes to know under what classification of diseases I would rank the several operations of the mind to which he had before alluded. To this I reply, physical, and not metaphysical inquiries, are the proper objects of a medical man, and those which are principally connected with the present question. Metaphysical investigations I leave to men of superior talents and learning, such as Mr. Chapman.

He still affects to think the topic frivolous: it is, therefore, rather surprising that he should deviate from his first resolution, and deem my lucubrations worthy of his notice. Were I not convinced of the importance of the discussion, I should have no longer trespassed on the valuable pages of the Repository.

New Street, Hanover Square.

VI.

Case of Placental Presentation, with Remarks. By Edward Chapman, Surgeon, Bath.

It was my intention to have made a relation of this case a vehicle for some remarks upon the peculiar opinions of Dr. Kinglake, as connected with the obstetric practice; because I am persuaded, that amidst the variety of instances which

are demonstrative of the necessity for the constant attendance of educated midwives, there is none by which it can better be exemplified than in cases of detached placentæ, and consequent hæmorrhage from the uterus: a very considerable length of time has, however, elapsed since the period of their first espousal; sufficient, perhaps, to allow of the possibility of the error of these opinions being discerned: and this circumstance, together with the fact, that the subject has been previously discussed, constitute my reasons for varying my determination.

I shall avoid, therefore, in this place minutely investigating the aptness of the arguments of Dr. Kinglake, or separately resolving whether or not there be invested in nature the means by which the preternatural presentations of the fœtus would ultimately be remedied, and its evolution from the uterus successfully brought about: every one who is at all acquainted with the subject must be aware that there very commonly occur cases in which, from presentation of the hand, *manual delivery* becomes requisite; and that in the absence of such assistance, the gradual *exhaustion* of the patient is the consequence. Every person also at all conversant with the subject must be aware that it will occasionally happen that the *chord* shall present itself, and experience has shown, that in the absence of *scientific interference*, the life of the child will inevitably be lost, and, perhaps, by the co-operation of other circumstances, that of the mother. Every individual possessing a competent knowledge of the subject must be convinced that there are other peculiarities which peremptorily demand the assistance of an educated midwife; and, moreover, that in a multiplicity of instances, in which the *natural presentation* has not been departed from, the application of instruments, and not unfrequently the destruction of the child, become necessary proceedings.

These instances of preternatural labour, although such as demand in the most decided manner the assistance of art, as they are less urgent in their nature, are comparatively of inferior moment to those which are rendered desperate by the accession of uterine hæmorrhage: in such cases, not only is the prompt exhibition of artificial means *absolutely indispensable*, but the most determined line of conduct becomes necessary for the attendant to save himself the disagreeable reflection, that by an act of *omission* he has been instrumental in depriving a fellow creature of her existence.

Elizabeth Moss, aged thirty-two, of consumptive habit, and in the eighth month of her pregnancy, was, on the morning of the 27th of February, whilst in bed, attacked with pains, which she considered as denoting the approach of labour: she

accordingly arose, and commenced equipping herself for the occasion. As she was employed in dressing, there was suddenly discharged from the uterus a considerable quantity of blood: its exact amount I am unable to determine, as, from my absence, I was compelled to resort to the account of the attendants, who rarely on such occasions scruple to exaggerate. The woman becoming faint, reclined upon the bed; whilst the husband, who was much alarmed, was despatched as a messenger to request my immediate attendance. A short time only elapsed previously to my arrival, when I found her in the recumbent posture, extremely pale, her pulse faint, and her countenance expressive of alarm. I immediately had recourse to an examination, from a fear lest the hæmorrhage should at this time be continuing, which appeared to be probable from the symptoms that were present. By this proceeding I was enabled to ascertain that the bleeding had ceased; or, at least, had been so diminished, that from the little which remained nothing of a serious nature was at the moment to be apprehended.

The os uteri, however, was dilated in so trifling a degree, that notwithstanding, from the sudden accession of flooding, I was induced to suspect the placenta was attached to its inner surface, I was unable satisfactorily to determine it. The circumstances which had transpired, from whatsoever cause they might have proceeded, were such as rendered it absolutely necessary that I should continue in attendance. As the faintness was dispelled, the pains recovered, and to each succeeded a discharge of blood. In the course of an hour the os uteri had considerably dilated; and by a repetition of my examination, I became satisfied that I felt the placenta adherent to the os uteri. From a knowledge of this circumstance, there could no longer exist any doubt as to the line of conduct which must eventually be adopted; but I was inclined to hope, that a further dilation of the parts might be obtained in the absence of any serious accession of the bleeding, and that thus the manual delivery of the patient might be accomplished with less risk of injury to them than at the present moment. In a few minutes, however, a severe pain was experienced, and a very copious hæmorrhage immediately supervened: indeed, the flow of blood from the uterus was so extremely rapid, that my patient suddenly became faint; and from the unremitting manner in which it continued, I was almost doubtful as to the possibility of turning the child with sufficient expedition to preserve her from impending death. In such a state of affairs, I was compelled to attempt without delay the introduction of my hand into the uterus. I felt a very considerable degree of resistance from

the external parts, in my attempt to dilate them; and still more so from a similar endeavour, as relating to the os uteri; which, from the faintness which had ensued, I should scarcely have expected. I succeeded, after a few minutes; and detaching the placenta, gained possession of the cavity of the uterus. I ruptured the membranes: and finding the feet at the fundus of the womb, brought them down, and as expeditiously as was compatible with the patient's welfare, withdrew the child. The placenta was removed, the uterus contracted, and no further hæmorrhage was occasioned. The state of the woman, during the period of my being thus engaged, I was unable to notice: but as soon as it was completed I had an opportunity of observing, to my regret, that from her general condition, there remained nothing of which the least possible hope could be entertained but her speedy dissolution. The pulsation of the radial artery had entirely ceased; and that even of the carotids, from the facility with which they were compressed, conveyed a sensation of their being empty and flaccid during the diastoles of the left ventricle. With respect to number, they were incalculable, a continued fluttering of the vessel alone being perceptible. Her extremities were cold; her lips pale; and her respirations occasional, with long intervals.

Some spirit, an article which was at hand, was poured undiluted into her mouth, and swallowed unconsciously, until she had taken several ounces. The head was now placed as low as possible; and after a considerable lapse of time, during which I remained, some evidences of returning sensibility were to be discerned: by a repetition of stimulating drugs, her pulse at the wrist became at length perceptible, inasmuch that it communicated a fluttering sensation to the finger: her respirations became more regular and frequent, but she still remained unconscious of what took place around her, and unable to articulate subsequently to this.

I continued with her, and administered, at proper intervals, spirit, now in a diluted state. The heat of her extremities returning, the windows were raised, and she was exposed to a current of fresh air, by which she appeared to be somewhat benefited. Having determined on leaving, conceiving that my presence was no longer serviceable, I gave directions that the spirit should be altogether discontinued; and that, in its place, should be substituted beef broth of the most nutritious kind which could be procured—strictly enjoining the attendants to prevent the intrusion of strangers, and to admit into the apartment no person whose presence was not absolutely necessary. I ordered her a draught containing xl. gtt. of laudanum, and ℥ss. of colouring tincture,

which was immediately administered. At ten o'clock in the evening I again visited the patient: strict attention had been paid to all which I had desired; the broth had been procured, and she had swallowed, without rejecting it, to the amount of half a pint: she was at this time enabled feebly to articulate, and promised her compliance with every thing which I should deem requisite. The pulse of the wrist was somewhat more distended and full, but not so slow as to admit of calculation: her respirations were forty in a minute: she felt extremely warm, and in consequence requested that the window, which had been closed with a view of excluding the damp air of the evening, might again be raised: her face was still pallid, and bedewed with respiration: she had obtained no sleep from the draught which she had taken, but had remained perfectly motionless and quiet. On leaving her, I gave directions to the attendants to continue precisely as before, with respect to the repetition of the use of the broth, excluding strangers, and occasionally changing the air of the apartment: she was desired also to repeat the draught, and to refrain from the further use of stimulants.

On the following morning I learnt, that during the night she had taken a very considerable quantity of the broth, which she had frequently herself requested, and expressed herself much revived by every draught. She had dosed about two hours: her pulse was more distinct, and varied from one hundred and thirty and one hundred and forty in a minute: her respirations were at thirty-eight in a minute: she spoke with more strength of articulation; appeared more animated; and answered questions with less indifference than on the preceding evening: on the whole, she was much better than I had any expectation of finding her. It will be unnecessary, that in order to lengthen this communication, I shall continue to recount the particulars of every visit which I paid her; and I shall, therefore, merely add — that by perpetually administering to her food of the most nutritious kinds, avoiding of stimulants, and the regular procurement of sleep by opiates, she was so far recovered at the end of the fourth week, that she was enabled to be removed from the bed, and to sit up several hours during the day: her pulse never fell below one hundred, but her strength had very much improved, and I had every reason to believe that she would ultimately be restored to her family. For several months previous to the event of her labour, she had been suffering from symptoms of *tubercular* phthisis: at that time I had no opportunity of seeing her; and I am unable, therefore, to ascertain the treatment which had been adopted; but her symptoms had been relieved, and the progress of the disease

retarded. As she recovered from the debility consequent on the loss of blood which she had sustained, her pulmonary complaints recurred: she had frequent cough, with expectoration, first of mucus, but subsequently of pus: she had uneasy sensations in her chest, her respirations were difficult; and, in fact, there was every symptom of pulmonary disease. She became hectic, and died at the end of two months from the period of her delivery.

The preceding case is rendered somewhat extraordinary by the very considerable loss of blood which had been sustained before the os uteri had dilated beyond an *extremely trivial degree:* it at the same time exemplifies from how extensive a hæmorrhage a patient may recover, if the natural powers are elicited by the immediate exhibition of stimulants; if they are *timely suspended;* and those means substituted by which the reproduction of the lost quantum of energy is brought about.

Upon these principles the preceding case was conducted in its treatment; and, from the result, I have no reason for regretting any one circumstance as connected with it. The exact quantum of blood which had been lost, I am utterly unable to relate; but some estimation might be made by the symptoms which succeeded, and more particularly by the *extensive rapidity* of the *heart's action,* which immediately supervened, and continued even until her death.

Bath.

VII.

Case of Typhus, with Remarks. By Mr. John Dunn, of Pickering, Yorkshire, Member of the London College of Surgeons.

Having transmitted the following case of typhus to Dr. Armstrong, (since the printing of the second edition of his work on that disease,) who, esteeming it "connected with a point of great practical importance," and advising me to publish it in one of the Journals, I have ventured to obtrude it upon the notice of the profession through the medium of the Repository; with a few additional remarks, which have since occurred to me.

Mr. Thomas Payler, of Middleton, applied to me on the 31st of March, 1817, with the general symptoms of pyrexia, together with a cough, unattended with tightness in the chest. I gave him an emetic of ipecacuanha, and tartar emetic, which operated very well; and following it up with squills and nitre, he was soon relieved. His bowels had been purged by the emetic, so as to render a cathartic unnecessary.

By too early an exposure to cold, he relapsed; and on the 13th of May he sent for his former medicines: the emetic was repeated without effect: another, a stronger dose than the last, was also given with no better result. He continued much indisposed. On the 21st of May, I was desired to visit him, when I found him extremely restless, his limbs painful in every position; his head much agitated; his countenance uncommonly dejected; and the whole system labouring under the greatest distress. I immediately took away about sixteen ounces of blood, and gave small doses of Dover's powder, with calomel. The next day he was greatly relieved; the blood was sizy. The symptoms returning on the 24th, the lancet was again used, and the blood was found to be more sizy than before. On the morning of the 25th, he was so improved as to come down stairs; but the exertion was too much for him, for in the evening he fell into a complete fit of syncope and stupor, more resembling an attack of apoplexy, than ordinary fainting. At this period he was loaded with clothes, the sweat ran in torrents down his face, the pulse dropped perhaps to forty or fifty, his senses were gone, and the case seemed highly alarming. Dr. Simpson being in the neighbourhood at that time, I called him in; and the just and philosophical views which distinguished him in this, as well as in other instances, I cannot sufficiently appreciate. The plan of treatment was extremely difficult to devise, as there was evidently an extreme degree of direct debility, and yet the exhibition of stimulants seemed to be opposite to the former views of the case. Considering it, however, to be of the first importance to guard against local congestion, as strongly pointed out by Dr. Armstrong, and which might, in this case, be the sole cause of the existing mischief; the head was ordered to be shaved, and kept cool, blisters to be applied to the temples, calomel to be given in small doses every night, and when the pulse would permit, the application of twelve leeches to the head. The bowels were kept soluble with aperients. The patient's friends were persuaded I had reduced him almost to death; and I hesitate not to pronounce, that many respectable practitioners would have immediately availed themselves of the opportunity for throwing in stimulants. But, steady to our purpose, and attributing all the ill effects to congestion alone, perhaps the rupture of a vessel in the head, the strictest attention to diet was observed. Nothing stronger than sago, rice, or vegetable food, was allowed; and mark the result! On the 26th, the pulse had revived, the stupor continued, the pulsation in one arm intermitted; twelve leeches were applied to the head. On the 27th leeches were again applied, and I ordered a

large blister on the chest, on account of the cough, which, together with the intermitting pulse, might indicate as much congestion in the chest as in the head. Leeches to the head, blisters, and calomel, were repeated at different periods, till June 4th. The patient being now under my own management, on account of the distance of a physician, who only saw him once; and as Dr. Simpson's views of the case were so conformable to those which I had derived from Dr. Armstrong's work on typhus, as to the importance of preventing local congestion; I determined, however hopeless it might appear, to open the temporal artery. My patient was perfectly insensible, so that it was done without difficulty, and the stream was free; the quantity removed was about fourteen ounces, and on standing, exhibited a perfect buffy coat. This is a circumstance I wish to direct particular attention to, as it confirms my former observations*, as to arterial blood exhibiting the buffy coat, and it may further illustrate the character of the inflammatory action in this disease†. The relief derived from this effusion of blood, was very conspicuous, but

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* Vol. vii. page 466, London Medical Repository.

† I believe that in many diseases too great an action may exist in the arterial, without a corresponding energy in the venous system. I have an old man at this moment labouring under a severe cough, whose pulse, at the wrist, is very tense, strong, and full, and yet on bleeding him from the basilic or cephalic veins, however free I make the orifice, the blood only flows in a slow, feeble, and sometimes interrupted stream. I have punctured in different parts of the veins from the apprehension that I had not fairly opened them, but still the result was the same. The veins would fill on the application of the ligature; but their current, during his illness, was so tardy, as to render the lancet of very little service. I obtained the most blood from him once when he was heated with warm tea; but I had his arm in warm water at other times. Ossification of the arteries might occasion this effect, and the state of the pulse, at the wrist, in such a case, might deceive a practitioner as to the necessity for bleeding. Whether a diminished action of the venous tubes is the consequence of an increased activity of the arterial system, in particular cases, and *vice versâ*, or whether it arises from a spasmodic constriction of the capillaries, or a disease of the coats of the artery, it is hard to say; but such a condition once existing, might give rise to many diseases, particularly fevers. Many of the symptoms are referrible, as well as part of the treatment, to such a state: and although I admit that such a want of balance has been often observed before, I do not know that the practical treatment of disease, as far as preferring the opening of an artery or a vein, has been regulated by such principles. A series of experiments, I believe, are much wanted, to ascertain the effect of different remedies on different parts of the vascular system, and since

he still continued in a state of stupor till the end of July. His pulse at different periods of the fever, ranged from 90 to 140, his breathing became less oppressed, and at the end of this time he began to take food, milk and oatmeal, in considerable quantity. His bowels preserved their regularity; but before and after the recovery of his intellects, he was continually tormented with a most violent hiccough. This continued all the summer, and would not allow him to eat animal food, as it remained in the œsophagus. Since he was troubled with a rejection of every thing he attempted to swallow, from a small piece of meat remaining in the gullet, which had probably been partially paralyzed perhaps in the longitudinal fibres. On using the probang, and teaching him the method of introducing it himself, he soon overcame this difficulty. He now enjoys a *mens sana in corpore sano.* It is taught at one of the first schools of medicine in this kingdom, that there is no instance where the lancet is allowable in typhus after the second week. I have cured many by the lancet at this period: and in the preceding case, the blood was even sizy from the arteries in *the third or fourth week.*

I cannot but think that the word typhus would be better exploded from medical science as a genus, and only used to express some of the consequences of synochus. I do not give this opinion in conjunction with some of my professional brethren, on account of the alarm that the name creates amongst the patient's friends, and the difficulty of securing their attendance, as I believe that will be more than counterbalanced by the repose ensured from their absence; but because I am convinced many patients are sacrificed from the terror which operates amongst the people, and on old and timid practitioners against the use of the lancet in typhoid cases. That the disease, in its primary form, is almost invariably of the character of synochus, I have no question; that its termination is also as frequently, or even more generally, in local congestion, or in an excited action of some of the viscera, than in putrescency, I am equally satisfied. I could record cases where I had not bled in the commencement of the disease, and was obliged to resort to it in the end. One instance I strongly recollect, was a young woman of the name of Hannah Harding, in West Gate. I visited her on

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we know that the veins are, in some instances, absorbents, it would be of the first importance to increase the action of the veins, and the diminution of that of the arteries in the treatment of dropsies. A careful examination of the operation of the passions, or the emotions of the mind, might also tend to some elucidation of this subject.

the 1st of December, 1814, gave her an emetic, applied a blister, and exhibited a purgative. At this time, being influenced by the prevailing system of treatment, I was not so fully impressed with the propriety of the lancet. On account of the indolent state of her bowels, calomel and castor oil were continually employed. Her head becoming more affected, having sunk into a state of coma on the 21st, I opened the temporal artery, had the head shaved, and applied a large blister. This roused her for the time, but she relapsed, and continued for five or six days in a complete state of insensibility: her utterance and expressions of pain were entirely gone, her eyelids never closed on the application of a candle close to the eyes; she passed neither stools nor urine for all this period, and swallowed nothing. Her pulse continued calm; and her tongue, although dry in the centre, had a moist red edge: these symptoms preserved my hopes of the case, although her friends only watched for her last breath. On a sudden, as if roused from a trance, the comatose symptoms disappeared, she sat up, talked cheerfully, which she could only do a week before in a lisping manner, and ate freely. Her breast, soon after this period, partook of the congestive character; having now a dry cough, and a sense of constriction. A blister was applied to the sternum without affording relief; and on the 7th of February, after much persuasion, I cupped her on the chest. The benefit resulting from this was very striking; and I felt much satisfaction, as a case of typhus (Anne S.) ended fatally, as I was informed, in pulmonic symptoms, in the same street, just at this time. The symptoms returning in spite of squills, and other expectorants and purgatives, she was cupped again with evident advantage on the 28th. Having overcome the congestion in the head and chest, the disease now determined to the abdomen. This was the period of acute suffering: she had generally remissions in the day time, but was racked with pain in the night; anodynes and purgatives did not appear of the least utility; fomentations only afforded partial relief; I therefore resolved upon a single bleeding, which considerably shortened the paroxysm, and she passed a tolerable night. On proposing a repetition of the lancet, however, another practitioner was called in, who gave her some stimulating drops, perhaps ether, tincture of cardamom, and opium, which produced such burning agonies, that she was obliged to desist from them. I was sent for again, and was now allowed the full exercise of my own discretion. On the 13th of March she was bled twice, had a blister on the 19th, and was again bled on that day, the 20th, and the 24th. The last day I had the advantage of Dr. Simpson's advice, who strongly recom-

mended a perseverance in this plan, and in the use of a purgative mixture, without any apprehensions of debility, till the disease was subdued. The lancet and medicines were used no more, as she recovered, and now enjoys very fair health. Her health, however, was interrupted by another attack of fever in March 1816. I was called to her on the 21st, and bled her on that day, the 22d, and April the 3d. Purgatives, a blister, and low diet, were combined; and she recovered so rapidly, that the last bleeding was the last day she was in my books.

Another evil resulting from the term of typhus, or rather from the prevailing system of treatment associated with it, is the uncertainty of treating a common cold, or any febrile disorder at the commencement; for most practitioners will now concede, that at that time chiefly is the main blow to be struck. I have more than once seen cases of inflammation of the lungs occur at a period when typhus prevailed, and the practitioner was at a loss what to do. Instances will often be found where every organ is so much disturbed, that it is hard to say whether the disease is more in the lungs than in any other part: five or six days I have seen lost in this way, before blood was removed; the practitioner trusting to emetics, purgatives, diluents, blisters, and low diet. This keeps the disease still more in the dark, till at length he is urged to bleed: the blood is now found covered with size, and the patient is then to undergo the severe treatment of pneumonia, when suppuration or effusion is on the point of taking place. How many hundreds are lost from the want of the timely use of the lancet in such cases!

The neighbourhood of Pickering, which about twenty years ago was constantly visited with the intermittent fever, has, by its improved state of agriculture, its drainings, and perhaps by better living, been entirely exempt from the disease since that period. Typhus has of late, however, prevailed to a greater extent than would be expected in a people accustomed to a fine country air, a regular table, and the pursuits of agriculture. But I am inclined to think that exposure to dampness is a much more frequent cause of this disease, than the air of a populous city: and although there can be no doubt of the necessity of ventilation and cleanliness in this and all other disorders, still, from my imperfect notions of chemistry, I am at a loss how to reconcile the paradox of carbonic acid being an antiseptic, and yet that the atmosphere of a crowded city, which is loaded with these vapours, (as the lighter ones ascend above our range) should be considered so noxious. We can only account for it by supposing an effluvium to exist, which is not demonstrable: but this is not a philosophical way of reasoning. It is also well known that the

constituents of the atmosphere are every where the same. One circumstance, however, can be demonstrated; the constant accumulation of heat in a populous neighbourhood, and the nonconducting property of the air, when confined. It is well known that heated fluids only part with their caloric by change of position, and that consequently a close room, a bed with curtains, or any confined place, must considerably augment the heat of the patient, and consequently his febrile symptoms. Hence the necessity of exposing the patient to a cool, as well as a pure atmosphere, an object only partially obtained by fires in a room, and which would be much better followed up by straw beds, light and conducting coverings, freezing mixtures in the room, dry and spacious apartments, a position more inclining to the erect than horizontal, cold drinks, &c. bedsteads of wood, lined with tin instead of sacking, with iron posts and rails, the exclusion of thick blankets, and substitution of hempen cloths of a close texture, quilts without padding, and in the summer, a cloth suspended loosely in the air, and exposed to the wind, so as to produce constant agitation, and only a single curtain to exclude the light, are objects not unworthy the attention of projectors of fever wards. Instead of windows above the reach of patients, as I have seen, I think they would be better if on a parallel with their feet, and opening at both extremities, as the dense air gains admission more readily when they are opened, and drives the warm particles upwards. In damp cottages, when fires cannot be made, dishes of dry muriate of lime, or dried trap, or other absorbents of moisture, might perhaps answer as a temporary expedient, in the want of a better.

It remains for me to add, as a just compliment to Dr. Armstrong, Dr. Johnson, and the Dublin practitioners, that whenever I could act up to the principles they have pointed out, I have never lost a case of typhus, although I only lately had several successful cases, when another practitioner, who opposes this system, lost five patients in a very short period of time. Two of them died in one house, when Dr. Currie's plan (in certain cases highly judicious) was fully put in execution. I had a third, the parent, worn down with grief, habitually accustomed to asthma, and labouring, during the disease, under derangement of the brain. By bleeding her twice in one day, after I had tried in vain a blister; by the use of purgatives, of calomel, and the subsequent application of leeches, she recovered, and is now able to perform her domestic duties. After the bleeding had stopped from the wounds which the leeches had made, such a complete collapse took place, that I was called to witness her dissolution. But on examining her pulse, which had become regular and slow;

her tongue, which was now clean and moist; her senses, which had been wandering, were now become calm and apparently exhausted; her skin, far from the partial sweats of death, was now universally covered with perspiration; without subsultus, singultus, or any other deadly symptoms; I pronounced that a crisis had taken place, and that I had no doubt the change was of the most salutary character. She recovered from that period. I must say, I never witnessed a crisis so distinctly marked as this: and when the complete resolution of a tickling cough, which disturbed her the day before, the entire change in her voice and faculties, the profuse perspiration, and the apparently exhausted state of her system, are considered, a superficial observer, influenced with the prevailing dread of the lancet, might easily have been alarmed at his previous treatment. All I thought proper to do was, to lighten the bed clothes, to administer encouragement, and to support her with sago and a small portion of wine, and she speedily recovered her strength.

If any additional motive was requisite to urge me in favour of the lancet, it is the loss of a highly valued brother, who died of a fever he caught in the dissecting rooms: here, nature seemed to have pointed out her own remedy; a circumstance which should always be regarded; as I understand he begged to be bled even to the last period of his disease, but was refused by the practitioner, from the groundless dread of putridity.

AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

LXIV.—*A Case of Abscess in the Omentum ulcerating into the Colon.*

J. D. a man of spare habit, fifty-four years of age, a blacksmith by trade, had been affected for fifteen months, at intervals, with acute pain in the left iliac region, with fever, costiveness, and (probably) other symptoms of inflammation: but as I had not the opportunity of seeing him till within three days of his death, I could only judge of his complaint and sufferings during that time, from the imperfect account I obtained from himself and friends.

I do not know that there is any thing in the case itself so important as to merit publicity; but as inaccuracy of judgment too frequently leads us to form an erroneous opinion of the

nature of a disease, and leaves the patient to suffer from our defective discernment, I may be permitted to hope, that some benefit may be derived from recording the case in question, particularly if we are at the pains to compare the opinion previously entertained of it by the medical gentleman who had attended this man for two months, to the time I saw him, with the actual cause of his death.

On Friday, June the 12th, Mr. Jessé Foot attended at the request of the patient's son, accompanied by myself.

The case had been supposed to be a stone lodging in the ureter, in its descent from the kidney.

We found him in bed, lying upon his back: he had a cadaverous countenance, dry skin, and a quick, hard, and thrilling pulse.

We proceeded to examine the part of which he complained. There was nothing to be seen; but, upon applying the hand, a circumscribed and hard tumor was distinctly felt, in a direction nearly parallel to the anterior, superior, spinous process of the crista of the ilium: it seemed to be about three inches in diameter. The slightest pressure upon the part excited considerable pain.

Before pronouncing our opinion of the case, we inquired into that of the surgeon previously in attendance, but not present with us. The same report was given us as we received at the time we were called upon.

The tumor, which was considered to be a stone, not presenting itself in the course of the ureter, and being much too superficially seated for such an affection, after a close investigation, we did not hesitate to persuade ourselves, that long protracted inflammation had produced a hardness and thickening of the omentum, and also of the colon about its sigmoid flexure; and that the continuance of unsubdued inflammation accounted for the pain, fever, and thrilling of the pulse, and gave support to our opinion as to the true nature of the case.

To reduce the pulse and to relieve the pain, being our first object, ten ounces of blood were taken from the arm: it had immediately the desired effect; an active aperient was given, and a febrifuge mixture prescribed.

On our visit in the evening, the blood was found to have the buffy coat, and cupped, and the crassamentum so firm as to bear suspension upon a knife.

The man was much relieved: he did not suffer the acute pain he did in the morning from pressure made by the fingers.

On Saturday, the 13th, he was doing, to all appearances, well; the quickness of the pulse was reduced to 90, his skin moist, and he had passed a comfortable night. He was directed to continue the fever mixture.

Sunday, the 14th, he was in every respect as the day before, but he had not passed so good a night.

As the hardness of the pulse was considerably abated, the skin moist, and the bowels quite open, ten grains of the pulv. ipecac. comp. were ordered to be taken at bed-time.

Monday morning, the 15th, he expired. His former symptoms of pain, fever, and excessive restlessness, returned during the early part of the night.

Appearances on Dissection.

On Tuesday, the 16th, Mr. Foot being prevented from attending, I was present at the opening of the body, as was also the surgeon who had first attended.

Upon drawing back the flap of the integument covering the tumor, a large scirrhous abscess was torn through, it having been continued through the peritoneum into the substance of the muscle.

On dissecting the omentum from the intestine, which to some extent was firmly united, the ulcerated part of the colon was seen involving its whole diameter.

The sac was of a cartilaginous or almost horny substance; the torn edge had an inverted and thickened appearance, and the contents of the sac very offensive.

It was not healthy pus, but consisted of a discoloured matter, with small laminated substances intermixed, somewhat resembling the contents of an aneurismal sac.

The ulceration of the gut was recent; indeed it must have been so, for the fœces had passed the bowels in the few days I saw him, without any of the matter from the abscess being in them.

There was no shivering during the time I visited him; other symptoms he certainly had, indicating a disposition to abscess.

It appears strange, that evident as inflammation was, and must have been for some time, bleeding was only had recourse to once at the commencement: and such omission is, I think, to be lamented; for had that local inflammation been early suppressed, the existence of which was so clearly indicated by the many symptoms stated in the case, this man might, it is presumable, have been rescued from long suffering, and restored to health and to his family.

PART II.

ANALYTICAL REVIEW.

I.

The Influence of the Atmosphere, more especially the Atmosphere of the British Isles, on the Health and Functions of the Human Frame; embracing Observations on the Nature, Treatment, and Prevention of the principal Diseases resulting from sudden Atmospherical Transitions, and unfolding Original Views and Fundamental Principles for the Prolongation of Life, and Conservation of Health: to which are added, Practical Researches on the Pathology, Treatment, and Prevention of Gout and Rheumatism, in all their Protean Forms. An Essay. By JAMES JOHNSON, M. D. Surgeon to His Royal Highness the Duke of Clarence, Author of the "Influence of Tropical Climates on European Constitutions;" and one of the Editors of the Medico-Chirurgical Journal and Review. 8vo. pp. 294. London, 1818. Underwood.

THE author of the present work commences his dissertation by a few reflections on the atmosphere, pointing out that by changes in its sensible properties, and sudden vicissitudes of temperature, it is frequently the cause of derangement in many of the most important organs in the body. He endeavours to account for the prevalence of pulmonic affections in this country, and hepatic diseases in hot climates, by assuming it as a principle established by observation, that the variable constitution of the atmosphere communicates impressions to the skin, which, by sympathy, are conveyed to the lungs or liver.

"The consent of parts between the skin and lungs, which we may denominate the *cutaneo-pulmonic sympathy*, explains the origin of the grand class of climatorial diseases in this country, on the same principle that the *cutaneo-hepatic* sympathy is applicable to the diseases of tropical regions, particularly the climate of India. For, as in the torrid zone, the biliary organ is weakened by excessive secretion of bile, the consequence of a high range of atmospherical heat, and of course the liver predisposed to disease; so in cold and variable climates like this, the lungs are the organs which bear the *onus* of disease, as is evinced by the prodigious havoc which pulmonary

consumption annually makes among the inhabitants of Great Britain."—p. 8.

Diseases of the stomach, intestines, and kidnies, he has attempted to account for by a similar mode of reasoning; but in what manner this sympathetic association takes place, he does not profess to know; and all that he wishes us to believe is, that a morbid effect is extended from the external to the internal organs, independent on the mischief which arises from the suppression of perspiration. But, besides these sympathies, he takes notice of those which exist between the organs themselves; as, for instance, the *gastro-cerebral*, the *gastro-renal*, &c.

The leading features of this discussion on the influence of the atmosphere on the human constitution, and the morbid action which, by sympathy, is created in the internal organs, are thus briefly summed up: —

" 1. The climate of England is variable.—Mean T. 52°.
" 2. The operation of heat predisposes the human frame to be more easily injured by sudden transition to cold, and *vice versâ*.
" 3. Atmospherical impressions are primarily made on the skin and lungs, between which there is an intimate sympathy; by which medium, atmospherical transitions occasion or increase the extensive class of pulmonic complaints, from a common catarrh to a confirmed phthisis.
" 4. The cutaneo-gastric, hepatic, intestinal, and renal sympathies, lead to the production or aggravation of many complaints in the functions of these different organs from aerial vicissitudes acting on the surface.
" 5. The interior organs themselves, when once affected through sympathy with the surface, sympathize unequivocally with one another, producing various anomalous and complicated symptoms.
" 6. Aerial vicissitudes produce scrofula, the taint or predisposition to which, is transmitted from parent to progeny."—p. 14 and 15.

The whole of this preliminary discussion about sympathy, and the effects which thereby result, is a striking example of blending important matter with speculative conceit. That the changes of the atmosphere are frequent causes of internal disease, has been well known to physicians from the days of Hippocrates, downwards; but to assume that these may account for the production of disease in every instance, and under all circumstances, by a morbid sympathy, is not quite consistent with the precision required in medical reasonings. No one can question that there exists a tender sensibility between the skin and internal parts, that a derangement of the former will cause a corresponding

affection in the latter, or *vice versâ;* but that there is an invariable and fixed law in our constitution, which excites and regulates a morbid action in internal organs by the effects which the atmospherical changes may induce, is, we imagine, rather a short-sighted view of the phenomena of nature.

If it be only by minutely investigating the various links in the chain of cause and effect, or, in other words, the "*ratio symptomatum,*" in diseases, that we can arrive at satisfactory doctrines, and successful practice: it is surely not according to a philosophical and logical investigation to circumscribe and limit the action of causes in the production of disease; and thus to regard all morbid phenomena through one medium, springing from one common source, and acting in one peculiar way.

The language and doctrines of sympathy were attempted to be introduced in pathological reasonings long ago; but they have hitherto shared the fate of other innovations, which have endeavoured to explain the operation of causes, and the exact sources of morbid phenomena, by assuming principles which have not been demonstrated by observation, nor confirmed by reasoning and experience; and it especially behoves ingenious men, such as is the author before us, to guard his mind against the undue influence of favourite notions.

His observations, however, on that class of diseases, produced by the action of the air, through the medium of the "cutaneo-pulmonic sympathy," on the respiratory organs, are really very valuable, and the means of cure recommended extremely judicious.

"Pulmonary consumption alone is computed to carry off 55,000 British subjects annually, or cause one-fifth or one-sixth of the whole mortality. If to this we add the deaths from inflammation of the lungs, asthma, water in the chest, &c. the catalogue becomes frightful."—p. 17.

"If we narrowly observe the operations of these, we shall, in most cases, find the functions of the skin first deranged. That diapnöe or insensible perspiration, which just keeps the skin soft, and of a natural temperature and full, is checked. The balance of the circulation is slightly disturbed. It oscillates from the surface to the centre and back again, as is manifested by the slight chills and flashings, that succeed each other. But that the balance is chiefly broken by a determination to the interior or larger vessels with a torpor of the capillaries on the surface, is proved by the almost constant sense of chilness and inclination to keep near the fire, which we feel in catarrhal and other pulmonic complaints. The capillaries in the lungs, sympathizing with those on the surface, the blood is not transmitted through them with the same facility as before; and hence a

plethora is kept up in that organ, till the complaint is removed. Nature seems to effect this by an increase of action in the exhalent vessels, and glands spread over the mucous membrane of the bronchial tubes, where an effusion or secretion takes place in the form of expectoration, which gradually relieves the turgescence in the lungs, as it is brought off by coughing, till the functions of the skin and respiratory organs at length resume their healthy standard."

Speaking of the mode of treatment of incipient phthisis, the author has condensed what the experience of ages has found the most efficacious means of resisting the progress (who can say effecting the cure?) of this remorseless enemy to the British constitution; and his observations well deserve the consideration of the community. Attention to dress, guarding against sudden vicissitudes, removal to a warm and mild climate, such as Madeira, South of France, or the secluded vallies in the southern and western counties in England and Wales, and, above all, a sea voyage, have been proved highly favourable to phthisical patients. A tropical climate is not the safest asylum for a pulmonary invalid, on account of the rapid and great transitions of temperature.

"It is certain, however, that *pure* air and elevated situations are prejudicial, and that those who live in the vicinity of marshes, where hydrogen abounds, are not so subject to pulmonary consumption; and it has even been suspected that *hectics* have increased, as intermittents have disappeared."—"In respect to diet, the extremes of Sangrado and Brown are to be equally avoided."—"The superacetate of lead also, when joined with an opiate, restrains, in a very powerful manner, the morning perspiration, which wastes and harasses the patient."—"It has also been proposed, and even tried with success, to send phthisical patients to the fenny counties, as Essex and Lincoln, where, it is said, an attack of ague has suspended phthisis*."

In the second section the author discusses the source, history, and treatment, of gastric affections. The stomach is an organ liable to a great variety of affections, from the nature of its office, and our irregularities of diet and regimen. The action of the stomach is disturbed by a wide range of mental emotions, and often sympathizes with other diseases of the constitution. Diseases of the stomach are more particu-

* Both the principle, however, and the fact which this last position assumes, have been denied by those who have title to be considered as authority, from the local opportunities they possess of observation. In Dr. Southey's work on consumption are two letters from respectable physicians in Essex, who deny the allegation of Dr. Wills, and others, that phthisis is comparatively a rare disease in marshy situations, where hydrogen and agues abound.

larly confined to those of a thoughtful or melancholy turn of mind, who are seldom free from anxiety, and are often under the influence of conflicting passions. The principal causes of deranged function in the stomach can be traced with more accuracy than almost any other disease; and although this organ sympathizes with other deranged states of the body to a very great extent, it is quite irreconcileable with the known and evident causes of disease to ascribe all the affections to which it is obnoxious to sympathy alone. It is an observation of daily occurrence, that certain states of the mind effect an immediate derangement in the digestive function, and will keep it up so long as that state of the mind remains: but whether this is caused by sympathy, or by any other means, (call it by whatever name we please,) is of little consequence for us to know; it is enough if we can accurately observe the effects in the order in which they are produced. Heat and cold have a powerful influence on the human frame; and the sensible effects which result, are changes in the circulating fluids and sensibility: but to employ the affections of the one to explain the various morbid actions of the other, is surely a direct wandering from "*the dignity of a philosophical discussion.*"

With regard to the "*cutaneo-intestinal* sympathy, there is certainly," says the author, "no cause of functional disorder in the bowels, so general and frequent as that resulting from external impressions on the skin, whether operating by direct sympathy, or as producing lesion of function in the stomach and liver, and thereby affecting the intestines secondarily."

As we have had, probably, a more extended experience in the diseases which chiefly affect Europeans in India, than Dr. Johnson, we shall therefore examine more particularly the accuracy of the opinions which he entertains of their nature, and the plans of treatment which he proposes for their cure.

We can find little fault with his description of the symptoms of dysentery, diarrhœa, cholera morbus, and hepatitis, as they appear in Europeans in India.

"After an attentive observation," says the author, "of the phenomena of dysentery, as it affected great numbers under my care, and also as it affected myself in person, I can confidently affirm, that two functions appeared to be *invariably* disordered from the very beginning, and which either soon produced, or were accompanied by other derangements. These were the functions of the skin and liver, or perspiration and biliary secretion. Let a dysenteric patient be accurately examined, and if these two functions be found in a natural state, at any period of the disease, unless from the effects of medicine, or when the symptoms are giving way, I consent to be termed a superficial observer."

The work of Bontius, a Dutch physician, first drew the at-

tention of medical men in India to the frequent connexion of dysentery with hepatitis. Dr. Paisley, who was at the head of the medical department of the Madras army nearly forty years ago, distinctly pointed out their close alliance, and established the mercurial treatment: and Dr. Ewart, who was Physician-General to His Majesty's forces in India, urged medical officers to use mercury in dysentery, being fully persuaded that the disease was the effect of hepatitis. In a letter to A. Trevor, Esq. surgeon 33d regiment, dated Columba, 28th December, 1798, Dr. Ewart states: "From what I have learnt from the most respectable sources in this country, I am persuaded that if mercury be pushed *vigorously* in the beginning of the disease, scarcely one case in a hundred will prove fatal." It was from these respectable sources that the hypothesis of dysentery and hepatitis in India, being one and the same discovery, and to be cured by one and the same treatment, arose, and has since been re-echoed from almost every mouth. We recollect to have asked a medical practitioner in India of the highest reputation, and who had filled a situation for nearly fifteen years, well calculated to decide the question, whether or not he found the liver *invariably* affected in fatal cases of dysentery? His reply was candid enough: "I have been told so by the oldest practitioners: when I was young in the country I opened the bodies of the dead, and always found the liver diseased; but of late years it has not been customary with me to do so; yet I am satisfied abscesses of the liver are always found in fatal cases of dysentery."

To guard us from confounding the true or idiopathic dysentery, older practitioners substituted the term "Indian-flux," or "hepatic dysentery;" in order to characterize that species of bowel affection which is most common in that country, generally confined to the class of residents who have been *seasoned* to the climate, and which is usually found connected in some way or other with liver derangement; but, whether the one is a cause or consequence of the other, observation has not accurately determined. We are really ignorant, as yet, of the connexion which subsists between these two diseases; for sometimes hepatitis precedes the rise of dysentery or "Indian-flux;" at other times it follows in succession; and in many instances there are evident symptoms of both diseases existing from the commencement to the termination of the case. On many occasions we suppose the liver to be intimately concerned in the production and aggravation of the disease; and after death has taken place, dissection points out our mistake.

The true or idiopathic is oftentimes mistaken for the symptomatic, "Indian flux," or "hepatic" dysentery, as it has been variously called, which is chiefly confined to young men

or recruits lately arrived from Europe; or men of a robust and full habit, who are intemperate in their modes of life, such as most of the European soldiery in India. This is a very common and very formidable disease, particularly in camp, or during the hot weather in some parts of India; while in others it is much more common and more fatal in the cold season, or during the monsoon. In such cases we have seen the blood flow per anum, as if from an open or ruptured blood-vessel, and this continue with a general sinking of the power of life, the most excruciating pain in the abdomen, prolapsus ani, and agonizing tenesmus, until death speedily closed the scene by mortification of the great gut. In countries where intermittent and remittent fevers are endemial, this violent dysentery is a common attendant; and it is a matter of common observation amongst regimental medical officers, that if the fever is speedily subdued the dysenteric affection will also quit the patient, or at least the violence of its symptoms will be greatly moderated. Fevers frequently degenerate into dysentery by change of climate; but in such cases the liver is very generally affected, as is also the spleen.

It is of the utmost importance in practice to distinguish the idiopathic dysentery, which is merely a simple inflammation of the internal coats of the colon and rectum, from the hepatic dysentery, which is rarely accompanied with those violent symptoms which designate the other. The mode of practice which is found efficacious in the one is not equally so in the other. Lumbrici or worms in the intestines frequently create the most violent inflammatory symptoms, and others produce all the symptoms of hepatitis. It is this symptomatic or hepatic dysentery which generally attacks sailors on board a ship in India, as well as in going to and returning from it. We have had occasion to observe this in a very particular way, not only amongst European sailors and soldiers, but also natives of India or Lascars.

And we have often had occasion to observe hepatic dysentery appear shortly after a mercurial course for a syphilitic affection; and after death numerous abscesses have been found in the liver. This occurrence is more frequent than regimental medical officers in India generally imagine; and the fact itself shows the impropriety of the indiscriminate and liberal use of mercury in the diseases of that country. Amongst the European soldiery in India, excessive drunkenness, irregular meals of unwholesome victuals, prepared by a designing cook-boy, exposure to the sun during the day, and lying on the cold ground in the open air during the damp and dewy nights, are the constant causes of dysentery, whether in the field or in quarters. The abuse, indeed, of pernicious and intoxicating liquors, such as fermented toddy and pariah arrack, are almost the sole

sources of regimental diseases in India. We have known soldiers lay bets who would drink the most in the shortest time; of course dysentery came on: and on dissection, after death, we have found the inflammation and mortification solely confined to the colon and rectum. The fact is as well ascertained as any one in medicine, that the liver is not "*invariably*" disordered in dysentery; and this does not rest with the mere result of our own observations, but on the testimony of every intelligent medical officer of our Indian army. We have cured many hundreds without a particle of mercury; and an account of the dissection of fifty cases now lies before us, in which the liver was found in a perfectly healthy condition. The two last cases which we had occasion to treat before leaving India, are strikingly illustrative of the colon and rectum being the only parts affected in true dysentery. Colonel E. had resided upwards of twenty years in India, was a domesticated and regularly living man, had been generally very healthy, except that he had been for many years frequently troubled with piles, which were always aggravated by costiveness and horse exercise. After a few months' march he was seized with the most violent symptoms of dysentery: he refused to submit to any regular treatment at first; the bowels soon became gangrenous, and he died. In this case the liver was suspected to be the cause of the dysenteric disorder, not so much from the symptoms of his disease, as from the repeated bowel complaints which he had long been subject to, and long residence in India: but we were mistaken, the liver was found of a most particularly healthy condition. It appeared that the inflammation had extended up the rectum and colon from the inflamed and enlarged hæmorrhoidal tumors seated on the verge of and up the rectum. Captain S. was taken ill about the same time, with similar symptoms, proceeding from an old hæmorrhoidal affection. This officer had been upwards of fourteen years in India, and was always a hard liver. The liver in this case was also conceived to have been the chief cause of the dysentery; but in this we were also mistaken, for the garrison surgeon of Poondamalée, who examined his body after death, declared he had seldom seen a liver of a more healthy appearance. He died of extensive ulceration of the bilious coat of the great intestines, accompanied with hectic fever.

We have already stated that we are ignorant of the connexion which subsists between the liver and dysentery of the older residents in India; and it is perfectly clear that it is neither to be accounted for solely by cutaneo intestinal sympathy, nor by obstructions in the liver, throwing a larger quantity of blood than natural on these parts, by means of the mesenteric vessels; for in those cases in which the liver ac-

quires an enormous size, (its substance sometimes very hard, and at other times particularly soft,) dysentery is not a common attendant: and also we often find that not one dysenteric symptom has been present during a protracted illness from hepatitis, and that on dissection the liver is discovered to be a mass of matter or pus, sometimes contained in the peritoneal tunic like A BAG.

It is not by the peculiar appearance of the urine, nor by the opinion that dysentery is invariably the result of or connected with dysentery, that the hepatic dysentery is to be discriminated from the true or idiopathic, or that proceeding solely from worms, acrid matters in the intestines, or piles in the rectum; but from an attentive examination into the history of the case, appearance of the stools, and symptoms as they have appeared in the rise and progress of the illness. We have observed in such cases the changeable appearance of the stools, being sometimes yellow, more generally green, and not unfrequently partly green and partly yellowish, previously to the occurrence of any pain in the region of the liver. Indeed the occurrence of pain in many instances in such complicated cases, is a bad omen; for, according to our observation, it occurs usually at the period an abscess is forming in the liver; and should a practitioner wait to be convinced of the liver being actually engaged until the occurrence of pain and other symptoms of hepatitis, he will be sadly disappointed in the efficacy of his sovereign antidote.

On the arrival of a new regiment or recruits from Europe, it is there we perceive the baneful influence of a burning sun on the raw and full habits of young soldiers, unaccustomed to the rich juicy fruits of India, and unseasoned to the spicy diets of the older residents. Dysentery in the most violent form soon invades them; the stools are chiefly composed of slime and blood; ulceration speedily ensues; the blood flows often in a full stream; and gangrene and mortification of the colon and rectum rapidly take place. The new-comers get seasoned by degrees to the heat of the climate, and accustomed to the common mode of living; but the dire example of drinking intoxicating liquors is soon borrowed from their older comrades; a similar disease results in many respects, and which is generally complicated with liver derangement. The following table will explain these circumstances in a very striking manner, and point out the effects of drunkenness in the persons of young and old residents in India, particularly when aided by great vicissitudes of temperature, wet, and fatigue. The diseases were principally dysenteries, the liver being concerned in most of the cases of the older residents; while in the 56th regiment, which had been but a short time in India, it was very rarely found affected; as appears by the reports of Mr. Co-

clough, a man of the highest professional reputation, and one of the best medical officers of our army. In the treatment of the disease, his sole reliance was on the lancet; and in protracted or chronic cases he gave mercury, as experience has proved that this mineral has a powerful influence in the ulceration which takes place after violent inflammation of the internal coats of the great intestines, independent of any connexion which that state may have at times with liver disease.

"Abstract from the Returns of the European Sick, with the Field Force late under the Command of Lieutenant-Colonel Douse, showing the Numbers per Cent of Sick Men in each Corps or Detachment for every Month, from September, 1812, to April, 1814.

Months.	OLD RESIDENTS IN INDIA.																NEW RESIDENTS.									Thermometer and Weather.	
	Squadron H. M. 25th Dragoons.							*Detachment of Artillery.*								*H. M. Royal Scots.*								*H. M. 56th Regiment.*			
	Effective Strength.	Sick in Hospital.	Proportion per Cent.	Cured.	Dead.	Transferred.	Remaining.	Effective Strength.	Sick.	Per Cent Sick.	Cured.	Dead.	Transferred.	Remaining.		Effective Strength.	Sick.	Per Cent Sick.	Cured.	Dead.	Transferred.	Remaining.		Effective Strength.	Sick.	Per Cent Sick.	Cured.	Dead.	Transferred.	Remaining.		
Sept. 1812.	168	21	12·05	19	1	..	1	95	14	14·73	10	..	..	4		..	..	..	..	..	..	..		1169	256	21·09	153	1	..	76		64	W.	..
Oct.	168	42	25.	29	..	..	13	102	13	12·74	8	..	..	5		..	..	..	..	..	..	..		1166	333	28·56	181	5	..	93		60	F.	..
Nov.	164	38	23·17	23	4	..	11	108	13	12·03	6	..	1	6		..	..	..	..	..	..	..		1160	400	34·48	222	8	..	170		..	F.	..
Dec.	153	35	21·47	21	1	..	13	105	17	16·19	8	3	..	6		..	..	..	..	..	..	..		1147	471	41·6	239	13	..	219		42	F.	..
Jan. 1813.	163	33	20·24	21	..	..	12	107	12	11·21	7	1	..	4		..	..	..	..	..	..	..		1137	474	41·69	252	11	..	211		50	F.	..
Feb.	161	30	18·63	19	1	..	9	108	10	9·26	3	..	..	7		..	..	..	..	..	..	..		1129	377	33·39	185	7	..	185		54	F.	..
March	168	28	16·66	16	1	..	11	108	17	15·74	9	1	..	7		..	..	..	..	..	..	..		1113	391	35·13	190	15	..	186		55	F.	..
April	157	36	22·93	16	2	..	18	104	16	15·38	9	..	1	6		..	..	..	..	..	..	..		1050	420	40.	176	13	48	183		66	W.	..
May	156	49	31·41	27	2	..	20	105	15	15·23	8	..	..	8		..	..	..	..	..	..	..		1014	428	42·62	178	26	..	224		64	W.	..
June	150	58	38·66	37	5	..	16	98	25	25·51	15	1	..	9		..	..	..	..	..	..	..		951	507	53·31	278	25	31	173		66	W.	..
July	148	47	31·75	31	4	..	12	89	18	20·22	13	3	..	2		..	..	..	..	..	..	..		931	487	52·31	248	12	..	227		68	W.	..
Aug.	144	42	29·16	23	4	..	15	88	14	15·91	7	..	..	7		..	..	..	..	..	..	..		907	412	45·42	156	24	1	231		82	W.	..
Sept.	152	34	22·36	14	3	5	12	108	15	13·89	6	2	3	4		..	..	..	..	..	..	..		505	107	21·18	55	5	..	47		78	W.	..
Oct.	147	26	17·68	17	3	..	6	103	8	7·76	2	1	..	5		..	..	..	..	..	..	..		480	116	24·16	65	6	..	45		78	W.	..
Nov.	144	33	22·91	15	3	..	15	94	7	7·44	2	..	1	4		..	..	..	..	..	..	..												
Dec.	147	25	17.	15	..	..	10	96	7	7·29	4	1	..	2		..	..	..	..	..	..	..												
Jan. 1814.	145	29	20.	11	1	2	15	89	5	5·61	2	1	..	2		..	..	..	..	..	..	..												
Feb.	144	37	25·69	20	..	..	17	89	6	6·74	3	..	..	3		..	..	..	..	..	..	..												
March	136	34	25.	15	1	..	18	88	7	7·95	2	..	..	5		..	..	..	..	..	..	..												
April	131	25	19·08	10	2	..	13	87	6	6·89	3	1	2	..		..	..	..	..	..	..	..												
	Average 22·97							Average 12·48								Average 22·1																		

N. B. To show the correct amount of sickness in this corps, it is necessary to include the 48 sick sent from camp to Bellary, on the 1st of April, 1813, 31 on the 22d of June, and 247 to the same station, on the 28th or 29th of August, 1813; when the sickness in the 56th regiment, while in camp, will amount to 38·80 per cent.—Average 38·80.

"The principle," says the author under notice, "which I propose to govern us, is in the treatment of either pure or complicated dysentery, *the restoration of healthy perspiration and biliary secretion, with an equilibrium of the circulation and excitability*, by a combination of mercury and diaphoretics, medicines which clearly produce those effects, will lull the pain, and relax strictures at the same time, by the opium. To guard against inflammation of the intestines and its consequences, we have the lancet on one side—to carry off diseased or irritating accumulations, we have laxatives on the other; while the fever, being merely symptomatic, will cease with the cause. For the successful issue of this treatment, *in general*, I appeal to the rigid experience of others, perfectly conscious of its matchless efficacy from my own."—pp. 40, 41.

To fulfil these intentions, the author recommends the introduction of calomel combined with an opiate and diaphoretic, in such a manner, that at least twenty-four grains may be given, or even more, if the symptoms are urgent, in divided portions, and at three, four, or six hours intervals, during the twenty-four hours. "When blood appears *alarmingly* in the stools, whether the fever run high or not, bleeding may be employed without the smallest apprehension of the bugbear debility."

The symptoms of dysentery, and the appearances discovered by dissection, prove it to be in all cases, and under all circumstances, a disease, at least partly, of an inflammatory nature: and the experience of Indian practitioners confirm this by the success attending the depletory plan of cure; and bleeding, laxatives, and diaphoretics, we know, will remove the dysenteric symptoms, which originate from, or are connected with, diseases of the liver: but this will only be for a time, the dysentery will return again and again until abscesses form in the liver and decide the fate of the patient. In such cases it is indispensably necessary to use mercury, if not during the period of inflammatory action which is going on in the bowels, and while we are subduing that action by the depletory means best suited to the case, at least immediately afterwards, or when the ulcerative progress has commenced, of which, in every case, more or less of that action takes place. There are three remarkable stages in dysentery; the inflammatory, the purative, and gangrenous: and in all these stages, particularly the second, strong vascular action, pain in the abdomen, and violent tenesmus, accompany it in its course very generally: and in this case, too, we have often used the lancet with decided benefit. Costiveness almost invariably precedes the rise of dysentery; the colon gets gorged with acrid matters: and under these circumstances, it will not appear surprising, that almost any thing

in nature may be sufficient, particularly in a country where the vascular system is so much agitated by sudden extremes of heat and cold, to produce inflammation in these parts. The violent action into which the intestines are thrown, causes rupture of the full and distended vessels running towards the internal surface of the inflamed and tender bowel; the bowels are thrown into spasmodic contractions; blood is poured out from the ruptured vessels; and in proportion to the quantity discharged, so is the danger and extent of the inflammation. We are speaking from what we ourselves have seen during many years practice, both amongst Europeans and natives.

The action of mercury, even in decided cases of hepatic dysentery, is very precarious, more particularly in such cases in which no other remedy, except perhaps a laxative, had been prescribed in the early stage; the mouth may be fully affected, yet the dysentery will often continue. To render the mercury generally efficacious, if bleeding is not required in the early stage, keeping up a constant nausea-diaphoresis, by means of small doses of ipecacuan combined either with calomel or the "blue pill" and the tepid bath, are essentially requisite. There is a kind of dysentery in India which is peculiar to old residents in certain situations, that seems to proceed from excessive secretion of acrid bile, and which a few gentle laxatives, together with the use of calomel or pil. hydragyri alone, will remove, as soon as the saliva is made freely to flow.

With regard to that species of dysentery which attacks young plethoric men, we know it is very rarely cured by any remedy except depletion. A regimental surgeon in India used, indiscriminately, calomel and opium in all cases of dysentery: deaths were frequent and many. He also used, at different periods, the various other remedies which have from time to time obtained some repute; and even tried calomel in doses of five or six grains, combined with a grain of opium, which were exhibited four or six times daily, until the mouth became affected; but still many deaths occurred, and almost every case was attended with sloughing of part or parts of the *gut*. The dissection of morbid bodies convinced him the disease was inflammatory, and he resolved to employ the antiphlogistic treatment, conducted on the same general principles which regulate the case of inflammation; and the result was so successful, that he did not lose more than one case of dysentery yearly, for many years afterwards; and these could not have been prevented, as the disease had made great progress towards gangrene previously to submitting themselves to treatment. The idiopathic dysentery, or that

attended with violent inflammatory symptoms, and copious discharge of blood in young, plethoric, and dissipated soldiers, is readily subdued by repeated copious depletions of blood, diaphoretic doses of ipecacuan, warm bath, and strong glysters of the infusion of ipecacuan. As the more violent symptoms subside, the addition of calomel is required, or what is found a more safe and mild, but equally efficacious preparation, the "blue pill." The mercury has generally a particular influence on the ulcerated bowel, and it acts as a laxative, and changes the morbid action which is going on in the system. The continuance of dysentery very generally brings on a diseased secretion or action in the liver; and by the speedy cure of the disease by active measures at first, all the evil consequences of it are avoided.

"I am now to mention," says the author, "a practice which, in some cases of emergency, I tried with unexpected success, and which was tried by a few others without any communication of ideas, and with similar results. It consisted in the exhibition of submuriate of quicksilver in scruple doses, twice or three times a day, without any other medicine, and which was found by myself and others to be unproductive of griping or hypercatharsis: on the contrary, it almost invariably eased the tormina, and lessened the propensity to stool, bringing on ptyalism sooner than any other plan of smaller and more frequent doses. I did not, indeed, adopt this practice *generally*, being quite satisfied, in ordinary circumstances, with the plan before detailed; but whenever I had occasion to push boldly on for ptyalism, in cases where time appeared extremely precarious, and where the symptoms were such as indicated the danger of rapid destruction of organization internally, I hesitated not to exhibit calomel in scruple doses (an experiment I first tried on myself), which I found, by repeated trials, to sit easier than either a larger or smaller quantity of that medicine—a curious but a certain fact."—p. 42.

There are no practitioners of the healing art more satisfied with the general efficacy of mercury in the prevailing diseases of India, than we are: we have exhibited it in different ways and in various quantities, in all the endemic diseases of that country, and watched its effects with eager and minute attention; but we cannot affirm from our experience, that where "a little has done good, a great deal does more." This dosing of large doses of calomel is a modern innovation; and although it might not have proved injurious to the *hardy weather beaten crew* who were the subjects of several naval medical officers' practice, it has not been found by us, and many others, to succeed in those who live on shore; and it is needless to add, after what has been advanced, that we deprecate its general adoption.

We will conclude this part of our review by quoting the

words of an intelligent and experienced surgeon, who had been in charge of a strong European regiment for upwards of twenty years in India. "The dysentery," says he, "which prevails in India, is not of a contagious nature; and if speedily reported, is, for the most part, easily cured by the free use of the lancet, leeches applied to the abdomen, the warm bath, fomentations, glysters, ipecacuanha taken in nauseating doses: and in some certain cases, when there exist affections of the spleen and liver, it has been found necessary to put the patient under a mercurial course."

The remaining diseases comprised in the third section are diarrhœa and cholera morbus: this division of the work is very creditable to the judgement of the author; but the best account of cholera spasmodica, as it appears in India, is to be found in Curtis's work; a work of no small merit and value.

In the fourth section, the "cutaneo-hepatic sympathy," or "derangements of the biliary organs," are discussed, comprehending scrofula and fever; and the effects of the various remedies used in these diseases are accurately pointed out.

"Great and numerous," says the author, "as are the morbid alterations of STRUCTURE which take place in the liver, they sink into comparative insignificance when compared with the derangements of FUNCTION in the same organ."—p. 51.

"The variety of causes which we have traced in the production of hepatic derangements, both of *function* and *structure*, would seem to point out a corresponding variety in the treatment: but this variety principally regards the prevention or removal of those causes themselves; for when their effects are once produced, a considerable similarity obtains in the means of repairing the injury."—p. 72.

"I consider the three primary indications to be as follow:—"In "*torpid liver*, which every hour arrests our attention, and requires our exertions to obviate its long catalogue of effects." 1. To increase and ameliorate the biliary fluid. 2ndly. To daily remove the vitiated secretions of the liver and other digestive organs. 3dly. To increase the tone and digestion of the alimentary canal."—p. 73.

"However rapidly the tone of the whole system be lowered by large and repeated bleedings, both general and topical, yet, till the healthy secretion of the biliary organ be restored, which cannot be completely effected by the above means, the patient is in danger of at least *infarctions*, if not suppuration in the liver. That mercurial preparations have the effect of exciting the secretory vessels of this organ, is as certain as that they increase the flow of saliva from the glands of the mouth; and that, too, totally independent of their cathartic powers." As the stomach, and sometimes the bowels, are in a state of morbid irritability, the *hydro-calomel* is a good preparation of mercury, if taken in three or four grains doses, every three or four hours, conjoined with a grain of pulvis antimonialis, and, if necessary, a quarter or half a grain of opium. If by these means a mild diapho-

resis is brought out on the surface, and bile is brought down in the stools, every thing is in a favorable progress."—p. 55.

The causes of biliary derangement, or "*functional*" disorder, and *structural* affection, are traced by the author from their sources to their direful entrance by the "cutaneo-hepatic sympathy," when the *modus operandi* is described with dexterous ingenuity. We must observe, however, in justice to the ingenious author, that this section is one of the best in his work; and although it is very short, yet the little it contains is well worthy of attentive consideration. The following observations require only to be known, to be duly appreciated:—

"A moderately warm and steady atmosphere is, however, peculiarly beneficial to the complaints in question, as it keeps up a mild action of the perspiratory vessels on the surface of the body, and, by the *cutaneo-hepatic sympathy*, of the secreting vessels in the liver. This accounts for the bad state of health, and even aggravation of their complaints, which tropical invalids so often experience on returning to northern countries. The cuticular and hepatic secretions are so interrupted and checked, that they are obliged to be constantly taking medicine, and bowel complaints very generally harass them for a considerable time after their arrival in their native, but estranged country. Hence the genial skies of the southern parts of Europe, and of Madeira, are at first infinitely more salubrious for the Anglo-east or West-indian, returning with hepatic complaints, than the raw and variable atmosphere of England: a doctrine which, I believe, either from ignorance or self-interest, has never before been inculcated, but which I know, from personal experience and suffering, to be true."—p. 74.

The next section is limited to *fever*, strictly so called; for the author omits the adjectives, *idiopathic* and *symptomatic*: not that he considers fevers in all cases dependent on topical inflammation, but because he is anxious to avoid a "war of words" about abstract terms. It would appear, that notwithstanding the labours of medical men of late years, and the many volumes which have been written on the subject of fever, the medical republic seem still divided in opinion as to its origin, seat, and nature. Many of the causes of fever will remain permanent as laws of nature, others can be modified or removed by human means; and certainly the great attention which has of late years been paid to medical police, has tended not only to diminish the prevalence of fever, but has apparently contributed very materially to the change of character, which this once fatal disease now assumes. The rapid vicissitudes of climate, and the sudden changes of the seasons, have in all ages been observed to produce a corresponding influence on the types of endemic fevers of warm countries; and although these variable conditions of the atmosphere are sensibly enough felt in England, yet the effects of these

changes are neither so striking nor so baneful. It must however be admitted, that, independent of other causes, the fevers of all countries are modified by the various conditions of the atmosphere; and these conditions have neither been accurately observed, nor the effects which they produce on the human constitution clearly pointed out.

When treating on the exciting causes of fever, our author takes occasion to object to those inferences which have been drawn by Bancroft and others against the notion of contagion, as applied to yellow fever: but as we have so recently made this question the subject of discussion, it will not be necessary at present to enter upon it again. And with respect to the rationale and treatment of fever, it will be superfluous to say any thing further in this place, than that Dr. Johnson goes hand in hand passim with Dr. Armstrong, whose treatise he takes several occasions warmly to eulogize.

It will be enough to say of the "Heygeia," or "the conservation of health and prolongation of life," that quite as little of common-place is admitted into this portion of the work, as a discussion on diet, dress, &c. must necessarily involve.

In the last retrospect of the progress of medical science, which appeared in the Repository*, an article was noticed, drawn up for the Dictionnaire des Sciences Medicales, by M. M. Guilbert and Hallé, inserted as an appendix† to this work, and although it is not a literal translation, yet the substance of the French memoir is condensed, "without leaving behind, says the author, a single useful fact, or ingenious observation." In that retrospect, the essay on rheumatism was likewise adverted to‡, forming a part of the appendix to this work, drawn up principally from the communications of nine highly respectable naval medical officers. The essay on gout we cannot too warmly recommend to the careful perusal and consideration of medical men, as well as to those afflicted with one of the greatest evils to which mankind is exposed from imprudence or accident; and, the disquisition on rheumatism in all its "*Protean*" forms, contains the results of the experience of many intelligent men, who have not only gathered their knowledge on board our ships of war in every climate, almost under every circumstance to which man is liable, but also on shore, where great and

* Repository, No. 50, vol. ix. p. 102.

† We have this moment heard that a new edition of the work now under review is in the press, and that it is to be published without this appendix, original matter taking its place. We believe, too, it is the intention of the author to publish the papers on Gout and Rheumatism separately.

‡ Repository, No. 50, vol. ix. p. 98.

numerous are the shapes in which this distressing and agonizing disease unfolds itself.

The third and last appendix of the work contains a short account of the author's experience of the use of the nitro muriatic acid bath, in the treatment of bilious diseases; and although we are ready to acknowledge that this remedy, in many instances, effects the most beneficial influence in derangements of the liver and other viscera of the abdomen; yet, we cannot perceive that in its effects it affords any decisive proof of the "cutaneo-hepatic sympathy."

In concluding this analysis of Dr. Johnson's work, which we have extended to a far greater length than was at first intended, we beg leave to state, that in executing our critical functions we have divested ourselves of all partiality, and feel an honest consciousness in having meant well. On the whole, Dr. Johnson appears to be not only an intelligent observer, a warm enthusiast, and an able theorist, but generally a judicious practitioner, who, like Sydenham, uses his hypotheses when he can, and shakes them off when they will not bend to his experience.

If we were compelled to express our opinion on the style of the present publication, we should say that it has rather more of animation than correctness; or, in other words, that it indicates more of talent than of taste. Dr. Johnson is a liberal and a learned man; and he is too well acquainted himself with reviewers' responsibilities, to take amiss the freedom which we have used, both with the matter and manner of his work. He and some others, who may peruse the foregoing strictures, will be aware also, that the plural pronoun, adopted by reviewers, has been adopted with especial propriety in the present article. It is avowedly from the pen of more than one individual. "To-morrow to fresh woods and pastures new." The ingenious author's book on tropical climates is shortly to come under our critical cognizance.

Elements of Chemical Science, as applied to the Arts and Manufactures, and Natural Phænomena. By J. MURRAY. Underwood, Fleet Street, pp. 294.

IT must be sufficiently evident, that a work such as that, the title page of which we have just extracted, is not susceptible of analytical review. To go through in detail an elementary work on chemistry, would be to travel ground with which, at the very least, the major part of our readers are already familiar. We have nevertheless thought it proper to notice this little production, as one in our minds indicative of much philosophical acumen, and

which will be a valuable addition to the library of even a proficient in chemical science.

Our readers are aware, that since the labours of Dalton and Davy, chemical processes and combinations have been viewed through a new medium. The doctrines of definite proportions and electric attractions, have served to alter even the arrangement of the materials which compose the great edifice of chemistry, raised by the enlightened industry of present times; and although confessedly much still remains to be accomplished in order to impart stability and truth to the mighty conceptions of modern philosophers, respecting the minute operations of nature's laboratory, much it will be conceded has already been done, even in the way of positive demonstration.

It is upon this principle of definite proportions and electric attractions that the work now before us is constructed, with respect to the arrangement and classification of the objects about which it treats. The following is the author's apology for thus deviating from the beaten tract of elementary treatises:—

"Much difficulty has been created by premature attempts to systematize chemical phænomena: the revolution which this science has of late years experienced, must obviate every doubt of this. The plan in this course, it is hoped, will be found to possess a natural order, and unfold a lucid and comprehensive view of chemical phænomena. It is admitted that objections not destitute of force may be urged to parts of it. Chemical theories are all more or less vulnerable. In the subsequent pages, I have in the first class considered the agencies which influence the laws of chemistry; in the second, taken a view of those bodies which are attracted to the *positive* extremity of the Voltaic circle: and the third class comprehends those which arrange themselves around the *negative* pole.—By this exposition it is evident that I have adopted the arrangement indicated by electrical attractions; for it appears to me that *electrical affinities are identified with chemical attractions.*

"Impressed with this view, Berzelius has composed a table containing a list of bodies arranged agreeably to the order of their electrical properties: *oxygene* begins the catalogue, and *potassium* terminates it: hence, oxygene is *first* in *negative* importance, potassium in *positive* importance; and the attraction obtaining between oxygene and potassium exceeds all others in this respect.

The list commences with those most powerfully negative, or attracted to the positive pole; and those which follow are in a declining ratio as we approach towards the *centre* of the column of substances, where it disappears. On the other hand, from this point to the other extremity, the positive intensity is progressive, and becomes more exalted as that pole is approximated.

"Gold and platina, for example, are about the centre of the column; and the affinities of these are feeble.

" Hence, if oxalate of lime is decompounded by the action of the galvanic trough, the acid (oxalic) is attracted to the positive wire, and the lime to the negative; and, on examination, it will be found that the acid is negative, and the lime positive. From controlling the usual phænomena by electrical powers, the common operations of nature are suspended or altered, and the constituents forced into new arrangements."

Having thus developed his plan, Mr. Murray proceeds to its execution, and the order of his course leads him first to consider the chemical *agents* of LIGHT, CALORIC and ELECTRICITY, the properties and powers of each of which are described and treated of with a considerable degree of scientific precision.

The second class comprehends bodies that are so influenced by electric laws, as to be " attracted by the positive pole of the electric circle; being positive with respect to those of the third class, and negative in relation to positive electricity." The bodies comprehended in this class are OXYGENE, CHLORINE, IODINE, and FLUORINE; and as the phenomena of combustion as well as the affections of acidity and alkalinity generally result from an union of these bodies with those of the opposite pole, such phenomena, with their several attendant circumstances, fall to be considered under this division. Mr. Murray here objects to the assumption that the acidifying principle resides in oxygene, both acidity and alkalinity in bodies seeming to be affections rather depending upon the *bases* than on oxygene and hydrogene; " and alkalinity and acidity, as well as combustion, may be accepted not as peculiar and specific principles, but as mere affections exhibited by the union of bodies in opposite states of electricity. Change the electric state, and you alter the affection: to potassium, oxygene communicates alkalinity; and to phosphorus and arsenic, acidity. While in a neutral salt, the acid and alkaline characters disappear, and the electrical relations are reciprocally changed." Together with combustion, respiration, acidity, atmospheric air, and bleaching, are briefly commented on in this second division of the treatise.

The third class, according to this system of arrangement, properly comprehends the several *bases:* these are attracted by the negative end of the voltaic circle, and unite with the comparatively positive bodies of the second class.

Mr. Murray classes these bodies in the following order:—

" 1. HYDROGENE, *basis of water.*
" 2. NITROGENE, *basis of nitric acid.*
" 3. CARBON, *basis of charcoal,* and *carbonic acid gas.*
" 4. SULPHUR, *basis of sulphuric acid.*

" 5. PHOSPHORUS, *basis of phosphoric acid.*
" 6. BORON, *basis of boracic acid.*

Metallic Bases of Alkalis.

" 7. POTASSIUM, *basis of potassa.*
" 8. SODIUM, *basis of soda.*
" 9. AMMONIUM, *basis of ammonia.*

Metallic Bases of the Earths.

" 10. CALCIUM, *basis of lime.*
" 11. MAGNIUM, *basis of magnesia.*
" 12. STRONTIUM, *basis of strontia.*
" 13. SILICON, *basis of silica or flint.*
" 14. ALUMIUM, *basis of alumina or clay.*
" 15. YTTRIUM, *basis of yttria.*
" 16. BARIUM, *basis of baryta.*

The Metals.

" 17. PLATINUM, GOLD, *&c.*"

When treating on the different earths, our author introduces the following remarks on agriculture, which we shall extract for the entertainment of our readers, and as a specimen of the manner in which Mr. M. discusses the several topics which his subject leads him to introduce.

" The earths occur under a great variety of modifications in a natural soil: the nice adjustment of the earths best suited, and the proper proportions required, form the *science of agriculture.* The nature of *manures*, relative to the kind and degree of nutriment they afford, constitutes an important part in this estimate. Of the earths, silica and alumina appear to act a *mechanical* part; *silica*, by rendering a soil, already too stiff and adhesive, sufficiently *porous* to allow the fibres to strike freely and fasten into the earth; and also of a texture so spongy, as to allow the free imbibition of moisture: while *alumina*, on the contrary, agglutinates the parts of that soil which is too loose, rendering it sufficiently firm to attach the roots, and prevent the absorbed moisture from percolating too quickly. *Lime* seems to act chiefly *chemically*, by decomposing animal and vegetable matters, and liberating the *carbon* from its combination, which is an essential constituent of vegetable matter.

" Carbon in soils is wanted where vegetable life makes much progress, because it is one of the most important parts of vegetable matter; and if it be not supplied in manure, it can nowhere else obtain a sufficiency. When vegetation proceeds very *slowly*, or rather where little vegetable substance is formed, (as is the case in all succulent plants, as the *cactus*, *agave*, &c.) then the carbonic acid gas of the atmosphere will furnish enough to preserve a continuance of vegetable life: but when vegetable matter is formed quickly and in quan-

tity, carbon must be supplied by manure, else the progress of nature would be interrupted.

" The grand *enemies* of vegetation are *magnesia* and *oxides of iron:* to be able to detect their presence, is no mean advantage. Iron may be discovered by infusion of nut-galls, which strikes a *black* colour; or by prussiate potassa, forming *Prussian blue;* or by succinate or benzoate of ammonia. Lime-stone containing magnesia is of a *dun yellow colour*, and frequently contains specks. S. Tennant found that grain scarcely germinated in moistened carbonate of magnesia, and soon decayed.—The test for magnesia is mentioned page 223. Add to these, its tardy effervescence in diluted muriatic acid.

" ' Are any of the salts of iron present? They may be decomposed by lime. Is there an excess of silicious earth? The system of improvement must depend on the application of clay and calcareous matter. Is there a want of calcareous matter? The remedy is obvious. Is there an excess of vegetable matter? This may be removed by liming, paring, and burning. Is there a deficiency of vegetable matter? It is to be supplied in manure*.'

" It is evident, therefore, that as agriculture, *philosophically* considered, is known to depend on the same agencies which produce the varied changes in the constituents of our world, so it follows that it may be made intelligible by chemical elucidation; and I have only to regret that the confines of this little volume interdict a full and free consideration of the laws of vegetable life, and of the subordinate agencies which concur to aid or defeat its progress.

" ' The doctrine,' says Davy, ' of the proper application of manures from organized substances, offers an illustration of an important part of the economy of nature, and of the happy order in which it is arranged. The death and decay of animal substances tend to resolve organized forms into chemical constituents; and the pernicious effluvia disengaged in the process seems to point out the propriety of burying them in the soil, where they are fitted to become the food of vegetables. The fermentation and putrefaction of organized substances in the free atmosphere are noxious processes: beneath the surface of the ground, they are salutary operations. In this case, the food of vegetables is prepared where it can be used; and that which would offend the senses, and injure the health if exposed, becomes converted, by gradual processes, into forms of beauty and usefulness. The fetid gas is rendered a constituent of the aroma of the flower; and what would be poison, becomes nourishment to animals and to man.' "

Upon the whole, we have been much gratified with the perusal of this elementary tract, which indicates on the part of its author a mind well stored with scientific principles, and anxious to enlarge the boundaries of chemical learning. As reviewers must have objections, we would just hint, that the constant recurrence to final causes and Nature's designs are not in the best taste. A philosopher has only to do with

* Davy's Elements of Agricultural Chemistry.

facts; and it has rather too much of an *ad captandum*, seeming to be for ever reverting to considerations which are not within the sphere of *natural* science. We would just hint too, that Mr. Murray has forgotten the share which the French philosophers had in rendering chemistry what it is at present. Had Black not existed, Lavoisier had probably never reformed: but perhaps we may carry on this dependent assumption to the length of saying, that, unaided by the lucubrations of Lavoisier, even Davy would not have decomposed the alkalis, nor have made his splendid and important and practical discoveries respecting the laws and circumstances of flame and ignition.

PART III.

SELECTIONS.

Process practised in the Establishment of Syoise sur Seine to extract Vinegar or Acetic Acid from Wood. By M. P. L. Dupuytren.

At one end of a large building calculated for the purpose, are four furnaces, adapted to receive large retorts, the lower parts of which are made in cast iron, and the rest in strong iron plates: at a small distance from the bottom of these retorts is the opening of a copper pipe, of three inches diameter, which rises through the metal of the retort, and widens like a tunnel at the upper end; a copper cylinder eight or nine inches wide, and eighteen or twenty long, is fixed to this tunnel, passing out of the building, is bent downwards, and is plunged into a large tub full of water, which is constantly renewed: from this it discharges itself into a condenser, to which are adapted, on one side, a small cock to carry off liquids, and on the other a cylinder of about the same bore as the one mentioned above, and which rises vertically, then turns down and enters into the building, where it is again bent, and opens at the hearth of the furnace.

This apparatus being arranged, the retorts are filled with pieces of wood which have been cut a year, and which must be chosen straight and long, and about as large as the wrist: these pieces are arranged in the retort with order. When the retort is full, it is covered with its lid, which is fastened on by means of screws: it is then luted carefully with clay, and by means of a crane two men raise it up and place it in its

furnace: over this is put a covering of masonry of considerable weight; the cylinder is fitted to the retort, and the fire is lighted.

The water which is in the wood soon dissipates, and the carbonization begins. Then there is disengaged a good deal of carbonic acid; acetic acid combined with water; carbonated hydrogen; and an oily matter similar to tar, with perhaps a small portion of carbonic acid gas.

From part of the retort in which the decomposition is made, all these matters are forced to pass through the entire mass of wood, to get to the opening of the pipe before mentioned, which is purposely placed at the inferior extremity: by this pipe they enter into the copper cylinder, which conveys them to the condenser; there almost all that is water, the acetic acid and oily matter, become condensed, and run off through the little cock; while all the carbonic acid, the carbonated hydrogen gas, carbonic acid gas, which also carry with them a small quantity of the other products, rise up by the other cylinder, and go into the fire, where they serve as fuel. When this operation has continued five hours, these inflammable vapours are directed, by means of a cock, under the fire of another retort, just lighted; the heat of the first furnace, and that which escapes from the wood during its decomposition, being sufficient to complete the carbonization of all which is contained in it, without the aid of the combustion of the gas. It is not necessary even to wait till the evaporation of these vapours has ceased, before the tube is removed from the ash-pit of the first furnace, because the charcoal would be too weak.

As soon as the neighbouring retort begins to give out its gaseous products, and can do without further assistance, the pipe is removed from the ash-pit, and the remaining gas which comes out is ignited, in order to prevent the disagreeable smell arising from it. The flame thus produced is as large as the pipe, rises many feet above the pipe, and lasts about half an hour. The moment the retort is removed, it is replaced by another, and the same process is observed as with the former.

Caution, however, is required in this process; for the moment the retort is taken out of the furnace, the copper cylinder is filled with inflammable gas: if it is joined and luted immediately to that which succeeds it, the gas will mix with the air contained in it, and the very smallest spark that could possibly penetrate the fissures of the retort would occasion an explosion; for which reason the apparatus is never to be luted till the very instant of the appearance of the empyreumatic vapour.

The retorts are from about seventy-two to a hundred cubic feet in capacity. They contain one and a half to two loads of wood, which, when it is well chosen, and of a good quality, will yield twenty-eight per cent of charcoal, and yield two hundred and forty to three hundred litres of pyroligneous acid, containing one-twelfth of tar.

The charcoal retains the form of the wood; it is intermixed only with a small quantity of dust, which proceeds from the bark; it possesses all the qualities of good charcoal, but its combustion is more rapid and more brilliant, and less is required for raising liquors to boiling heat. If exposed in contact with the air, it gains ten per cent in weight.

The most satisfactory results are obtained from hard woods: but white woods are rejected: it takes five or six hours to char the wood, and seven hours to cool the charcoal.

When the retort is taken out, the pyroligneous acid is a reddish, semi-transparent liquid, and of a strong empyreumatic acid taste and smell; every hundred parts will saturate as much sub-carbonate of alkali as seven and a half to nine and a half of sulphuric acid will concentrate.

The liquid flows from the condenser in a continual stream, of the size of a goose quill, and is conducted into a large wooden cask, placed in a cellar, where, in cooling, it deposits the greater part of its tar; hence it passes into another cask, where it remains in store.

It is preferable, in this state, to vinegar, for all kinds of dyeing and printing on linen; it possesses an oil, which is an excellent mordant for linen and cotton, and prints with a more brilliant, durable, and fine colour. It likewise serves to give a rose colour to woods, feathers, straw, &c.

In order to separate the acid from the empyreumatic oil, which colours and changes its nature, it is run into a large iron boiler, where as much subcarbonate of lime is added as it can decompose when cold. When arrived at this point, a certain quantity of the tar, which floats on the surface, is taken off with a skimmer, and by means of a pump the liquor is raised up in a cauldron, where it is then boiled. The saturation is then continued with quick-lime, and decomposes the acetate of alkali which remains in dissolution; and the sulphate of lime which precipitates, carries with it a fresh quantity of tar.

The deposit being accomplished, the liquor is passed into another cauldron, and there it is concentrated by a slight boiling till a thin skin arises; then it is put into wooden tubs, where, in cooling, it becomes solid.

The produce thus obtained is extremely impure and black, in consequence of its retaining some portion of oily matter.

This foreign substance resists repeated crystallization, and cannot be taken away except by melting. These impure crystals are therefore put into a cast-iron cauldron, where they undergo the aqueous fusion: all the water that they contain is evaporated: and when they are dry, the fire is increased till all the matter is in a burning fusion. It is then run into appropriate squares, in which it becomes solid.

In this state it is black like coal, but it easily dissolves in warm water; and this solution filtered and stirred with care, gives crystals of acetate of alkali, which retain scarcely any of the empyreuma. It is then melted in a certain large quantity of water, and is decomposed by means of sulphuric acid of commerce; it then gives out sulphate of alkali crystallized, and acetic acid, which only remains to be distilled to be obtained in perfect purity. The process may be carried on in large stone pitchers, called tourilles. While the burning fusion is going on, only a small quantity of acetate of alkali is decomposed, which depends, probably, on the presence of the oily matter.

This acetic acid, thus rectified, shows eleven degrees on the hydrometer of Baumé. It is to be preferred to distilled vinegar, as the latter is never so concentrated, and always retains some portion of vegetable matter, which injures the beauty of the fabrics; besides which, for all preparations to be done with the acetic acid of wood, it does not require to be purified.

In order to concentrate this acid to a proper state for crystallization, it is sufficient to combine it with acetate of lime, and to decompose this salt slightly calcined, by concentrated sulphuric acid. At the instant of contact the reaction is extremely rapid, and the acetic acid is disengaged, giving up to the sulphate of lime all the superfluous water.

The waters from the first and second crystallization of the acetate of alkali are no longer susceptible of giving fresh crystals by evaporation. As that, no doubt, depends on the too great quantity of oily matter which is in it, it is probable, that by calcining them alone, or with a mixture of charcoal powder, or, perhaps, by making them boil with charcoal, they might again acquire the properties of crystallization.

Being evaporated to dryness, they are mixed with tar, and then serve as fuel to heat the cauldrons. But as the cinders from them are not quite deprived of the acetate of alkali, they are passed through a reverberating furnace, washed in lye, and by the second crystallization the finest subcarbonate of alkali is obtained.

(From the Philosophical Magazine. — Extracted from the Journal de Pharmacie.)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

CHEMISTRY.

On a New Process for detecting the Presence of Arsenic, when combined with Animal Substances. By M. P. Orfila.

[Continued from vol. ix. page 515.]

Two drams of it were mixed with eight drops of a solution of arsenic, which contained only about a hundredth part of the poison. The ammoniacal sulphate of copper did not precipitate the liquor; it only occasioned it to assume a green tinge, which effect had been produced prior to the mixture of the arsenious solution; whilst blended with a mixture of two drams of distilled water, and eight drops of the same solution, a green precipitate was thrown down in abundance, which proved to be arsenite of copper. Roloff and Bucholy had before remarked, that the gravy of meat, containing arsenic, was not precipitated by the ammoniacal sulphate of copper.

2. A part of an animal stomach was boiled with a solution of pure alkali, prepared by mixing three drams of potass with seven ounces and five drams of distilled water: almost all the animal matter was thus dissolved: the liquor was filtered, and sufficient of nitric acid was added to render it limpid and yellow; it was again filtered, and the acid saturated by pure potass. The orange-coloured liquor thus obtained, precipitated very abundantly by the nut-gall infusion, which proved that the animal* matter was not destroyed, but merely dissolved, and little changed. In truth, the nitrate of potass formed in this experiment, is slightly affected by the galls; but the precipitate which it affords, is not to be compared with that to which we now allude. Chlorine put into this liquor separated from it some flaculæ. Nitrate of silver equally occasioned a yellow precipitate, as if it had contained arsenic: this result probably depended upon the circum-

* The French text has here *la matière arsenicale*; but it must have been intended to be printed *matière animale*.—Translat.

stance of the liquor containing a certain quantity of hydrochlorate, which being decomposed by the nitrate of silver, produced an insoluble chloride of silver, tinged by some mixture of fat. Sulphate of copper rendered the solution green, without occasioning any precipitate: this green cloud was produced by the combination of the blue colour of the re-agent with the yellow colour of the liquid: the sulphate, however, did not occasion any precipitate, even when arsenic was added to the liquor. Since water produced the same change upon the solution, as if arsenic had been actually contained in it; this effect was probably brought about by the presence of some organic acid, engendered by the re-action of the nitric acid upon the animal matter.

These experiments, together with several others instituted by M. Rapp, serve to show, that not only does animal matter resist nitric acid, but that further, during its treatment with this acid, several soluble products become developed, which, producing the same phenomena with liquor containing arsenic, would lead often to the inference that this poison was present, when it actually was not, the results being nearly the same from the application of nitrate of silver, ammoniacal sulphate of copper, and lime water, to a mere solution of animal matter, as where the same materials are applied to such solution having arsenic mixed with it.

After having thus shown the inefficiency of the tests hitherto proposed for the detection of arsenic when mixed with animal substances, M. Rapp proceeds to describe those processes which have appeared to him to furnish more unequivocal results.

A given quantity of pure nitrate of potass, carefully deprived of its hydrochlorate by nitrate of silver, is to be introduced into a glass vessel with a large neck, and the vessel placed in a sand bath: this matter is to be heated to a beginning redness; and small pieces of the suspected matter being made to evaporate into dryness by the application of a very mild heat, are then to be mixed with it.

By these means, both the animal matter and the nitrate of potass became decomposed; and the arsenic (arsenious acid) is transformed into arsenic, which unites with the potass of the nitrate of potass, and thus becomes arseniate of potass.

The following is the theory proposed by Orfila, in explanation of this decomposition and combination.

The oxygene of the nitric acid acts in part upon the combustible principles of the organic matter, and occasions the production of volatile substances, which are thrown off together with the azote of the acid. Another portion of the oxygene of the decomposed acid combines itself with the

arsenious acid, and thus changes it into fixed arsenic, which runs into union with the potass of the nitre, so that the residue contains arseniate of potass, the excess of nitre employed, together with a certain quantity of subcarbonate of potass produced by the combination of the carbonic acid, formed, during the operation, with the potass from a portion of the decomposed nitre.

As soon as the mass ceases to detonate, it is to be dissolved in distilled water, and the excess of potass is to be saturated by pure nitric acid. The liquor thus treated, will be proved to contain arseniate of potass, if it presents the following peculiarities:—

1. If it furnishes with the nitrate of silver a brick-red precipitate of arseniate of silver, which becomes blackened by exposure to light. This precipitate will be found to have no yellow cloud like that produced by the arsenious acid.

2. If it gives with hydrochlorate with a little acid of cobalt, a rose precipitate of arseniate of cobalt, soluble in an excess of hydrochloric acid, and which, by consequence, will not be produced when the solution of cobalt is made too acid.

3. If the proto-nitrate of mercury produces in it a yellow precipitate, dissolved corrosive sublimate is neither changed by arsenic acid, nor by the arseniates.

4. If it furnishes with the ammoniacal sulphate of copper, a blue precipitate without the smallest cloud of green, which would be occasioned by the separate presence of arsenious acid.

5. If it gives a yellow precipitate with the hydro-sulphate sulphuret of ammonia, (the smoking liquor of Boyle) and with a few drops of acetic acid, hydrochloric, &c.

In managing the above experiment, it will be right to examine whether some of the particles of arsenious acid may not have been volatilized during the detonation with the nitre: in that case, they would be found attached to the neck of the vessel.

Mr. Rapp finishes his dissertation on this head, by detailing an experiment, which he says leaves no doubt respecting the superiority of the proposed method of detection to that hitherto adopted. He mixed a solution of isinglass and gum arabic with 150 drops of a solution of arsenic, in which solution the arsenic was only in the proportion of one to the hundred. He dried the mass with a gentle heat, and threw it by small portions upon half an ounce of pure nitrate of potass, heated in a glass vessel; he treated the residue with water, nitric acid, &c.; and he obtained with the reactives proper to detect the presence of arsenic acid, precipitates so well characterized, that the process proved equal to the discovery of the minutest portion of poison.

SURGERY.

A Case of Retention of Urine, occasioned by a Calculus in the Urethra, lodged above a Stricture in the Canal, with Remarks by M. Jules Cloquet, D. M. P. *Extracted from the Nouveau Journal de Médecine.*

"When a calculus, which has passed from the kidneys into the bladder, or which has been formed in this last organ, attempts to pass by the urethra ineffectually, and thus occasions a retention of urine, what mode of treatment is it most advisable to follow? This is a question of considerable interest, but it can only be satisfactorily solved by taking into the account several circumstances. If the obstructing material be not very large, baths, fomentations, or oily injections, may sometimes facilitate its passage through the canal; but these means are for the most part inefficient when employed alone, and it is necessary to have recourse to other more powerful expedients. Sometimes pressure made from above downwards, and assisted by the emission of the urine, will succeed in dislodging the offending body. Some surgeons have recommended the introduction of an instrument, defended by a canula, in order to pierce the calculus, and thus extract it; but this method does not seem very practicable, and has probably never been employed. Others have suggested the dilations of the urethra by means of air; and sometimes these extraneous bodies have been extracted by a kind of suction; but not, as it has been supposed, by producing a vacuum in the canal, because its sides being soft, supple, and in constant contact, prevent the possibility of such void being occasioned. In some cases, the calculus has been laid hold of by elastic pincers introduced into the intestine, by means of a canula. And lastly, the incision of the urethra itself has been tried. This operation, however, ought never to be had recourse to, until after every other means has been tried unsuccessfully, especially when the calculus is detained near the scrotum, because there would be every reason to apprehend, in that case, subsequent incontinencies of urine.

"A printer, aged 45 years, who was of a scrofulous (lymphatique) constitution, and lived upon meagre diet, had been affected for eighteen years with a stricture in the urethra, which followed upon several gonorrhœas that he had contracted in his youth. He always carried about him some very fine bougies, which he was in the practice of introducing himself into the urethra; and he constantly passed his urine with much difficulty. About a year since, the urine being charged with an abundance of sediment, he at length passed some small yellowish pieces of calculus, round, hard, and of

about the size of millet seeds. When he came to consult me on the second of last March, for a complete retention of urine, produced by a calculus plugging up the urethra, he acquainted me that this accident had often happened to him before, and that in order to remedy it, he was in the practice of laying himself upon his back, pressing the stone from below upwards, in order to make it again pass into the bladder. Upon examination, I found a calculus, which appeared of a roundish form, and situated near the origin of the spongy portion of the urethra. I found that by gentle pressure from below upwards I could make some impression on the stone, but not in the opposite direction. Between it and the point of the urethra there appeared several irregularities in the canal, one of which was exceedingly large. The man was not able to pass any water; and the bladder, much distended, rose with considerable prominence above the pubes. Pains were complained of in the abdomen, especially towards the region of the kidneys; and the testicles were, beside being contracted, a little painful upon pressure.

" Sounding was impossible. I made the patient lie on his back, and by pressure the stone was forced into the bladder: he now, although with great pain, emptied his bladder, and felt himself much relieved. I then fixed a bougie in the urethra, and prescribed him a light diet with hip baths, and a mucilaginous drink. The next day his sufferings were not so acute, and he passed his urine twice, after having withdrawn the bougie: this had been kept in about twelve hours. I now introduced a second bougie, somewhat larger, and I found another stricture about half an inch above the first. The following days I continued to insert the bougies; but it was not until the eighth day that they could be made to pass into a third stricture, above which the calculus was always lodged. From this time the urine passed with more freedom, but the stone always returned to its situation in the urethra as soon as the bougie was withdrawn. By the introduction, however, of successive bougies and elastic sounds, which were gradually increased in size, I was able at the end of a month to introduce a sound about the diameter of a swan quill. I directed the patient to permit a great quantity of urine to accumulate in the bladder, and then suddenly withdrawing the sound, to endeavour to pass it somewhat forcibly, in order that the stone might be projected towards the neck of the bladder, and thus forced through the passage. This plan completely succeeded at the very first trial, and the calculus passed almost without obstruction through the urethra, and two smaller ones of a similar kind passed at the same time.

"The principal calculus by which the retention of urine had been produced, was about the magnitude of a common pea: it was in a small degree flattened, of a yellow colour, of a hard consistence, and formed of concentric beds. It did not present any exterior depressions corresponding with the other concretions which passed with it.

(It is by the way worthy of notice, that these marks on urinary calculi are never observed until the bodies acquire a certain size: while they are small, they are usually rounded, and formed like grains of sand. This remark is not applicable to biliary calculi, which present very distinct depressions on their surface, even when their volume is very small.)

A silver sound introduced into the bladder did not lead to the detection of any other concretion. I prescribed for my patient a more generous diet than that to which he had been accustomed previously to his being placed under my care. I recommended him to introduce bougies whenever he should be attacked with difficulty in passing his urine; and, above all, never to permit a large quantity of water to accumulate in the bladder.

"The patient has recently been with me. He is perfectly restored, excepting that his urine occasionally shows the presence of very fine gravel, which appears to come from the kidneys.

"The result of the above case proves the possibility of causing the exit of stones detained in the urethra from strictures, by merely having recourse to dilatation; which of course are greatly preferable to incisions, when they can be employed: these last are liable to be followed by incontinencies of urine, and more especially by urethral fistulas, which are more to be feared in proportion to the number and extent of urethral strictures."

PRACTICE OF MEDICINE.

It is a curious instance of the revolutions which medical opinions undergo, that while in this country our faith in the virtues of the Cinchona bark is evidently on the decline, our continental neighbours at this moment employ it in cases where but a few years since its use would not have been thought of. It will be recollected, that we extracted, in one of our recent Numbers, a case from the *Journal de Médecine*, in which the drug in question was conceived to be abundantly efficacious, after almost every other means had been had recourse to in vain. The following communication, which we extract from a more recent Number of the same Journal, will be seen to have the same bearing, and to have been published in consequence of the above-mentioned paper. It is

communicated by M. Grendon, of Château-du-Loir, in the department de la Sarthe.

" Mademoiselle Clarisse Trosseau, nearly three years old, was attacked on the sixteenth of April with a shivering, followed by violent pains in the abdomen; on the next day the tongue was exceedingly white, and the bowels were constipated.

" I was called in on the 18th; the patient was now constantly uttering piercing cries, and she complained of pains in her bowels; which indeed were so violent, as to oblige her to roll about on the bed; the tongue was white and dry; the bowels were still constipated. A medical gentleman, who had been called on the first day, had prescribed an emetic, and had followed its operation by a purgative of great strength: this last I discontinued, and ordered in its place emollients and cooling ptisans.

" During this day there were several stools, and the urine flowed freely; the paroxysm of fever returned in the evening; the night was passed with much restlessness.

" The fifth, every thing the same. On the sixth the tongue was dry and black, pulse weak, but the abdomen was not ense, nor painful upon pressure.

" In the evening, the pulse was found very frequent and very weak; much drowsiness, which continued through the night; convulsive agitations very frequent in the features of the face.

" On the 7th, the patient awoke exceedingly uneasy; the pulse was still weak, but less frequent. In the evening of this day, every symptom of a fully marked cerebral fever made its appearance with frightful force. The face had a deadly paleness; there was a temporary loss of all the senses, trismus, contortions of the limbs, insensibility, and general prostration. The patient now lay on her back; piercing but inarticulate complaints were from time to time uttered; the extremities cold; pulse both very small and very frequent.

" There was a retention of urine, and upon the introduction of a sound, the water was discharged thick and fœtid.—Constipation.

" Six leeches were ordered to the neck, blisters to the limbs, a camphorated drink, which she could not swallow, camphorated frictions. An enema composed of—

Strong decoction of wormwood,
Red Peruvian bark (*in powder*) ʒij*.
Assafœtida, ℈j.
Camphor, ℈j.
Musk, gr. iv.

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* In the translation of the last paper on this subject, drachms was by mistake printed grains.

" This was divided and injected in two portions; the first was rejected, the other was retained.

" On the 8th, I found the drowsiness less urgent, the pulse less frequent, more of trismus. I *embraced the period of remission* to make the child swallow, during the morning, seven tablespoonsful of good bark wine (bon vin de quinquina). At noon I introduced the sound again, and ascertained that the bladder had recovered its contractility.

" In the evening, the drowsiness less; pulse still frequent, but stronger than on the preceding evening; two convulsions during the night: the patient still lay on the back.

" On the 9th more fever, the tongue moist at its edges, light colicky pains, four fœtid stools following an emollient enema, an abundant secretion and free flow of urine. Now the little patient most sensibly revived (*semble renaître*), she took four spoonsful of the wine and bark. The evening paroxysm did not recur. Sleep during the night natural.

" The 10th, 11th, and 12th days showed confirmed convalescence. The urine during this time high coloured, and discharged with much pain.

" I applauded myself, (the writer adds, in addressing the Editor of the Journal,) that I had adopted that treatment which you recommended, and which was followed by such happy results."

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

SOCIETIES.

Royal Society. — *May* 28. — A paper, by Mr. Donovan, was read, on the oxides and salts of mercury.

Mr. Donovan commences by giving a view of what had been done by preceding chemists on this subject, and afterwards relates his own experiments. He thinks the protoxide of mercury consists of 100 parts of mercury to 4·12 parts of oxygen; while the peroxide consists of 100 parts of mercury to 7·82 parts of oxygen. These he supposes to be the only oxides of mercury, the one corresponding to the black, the other to the red.

June 4. — A paper by Sir Ev. Home, Bart. V.P.R.S. was read, containing an account of the teeth of the delphinus gangeticus; also a paper, by T. Smith, Esq. on the structure of the poisonous fangs of serpents.

A paper was also read, by A. B. Granville, M.D. on sulphureted azote, a substance which he supposes to be the produce of a peculiar process of animal decomposition, which takes place in the living body. It existed as a component part of a gas which was found in the abdomen, and was mixed with a portion of carbonic acid. It was supposed to be composed of $89\frac{1}{2}$ parts of azote and $10\frac{1}{2}$ of sulphur.

A paper was also read containing an account of some experiments made to ascertain the effects of voltaic electricity upon vegetable life, by J. Williams, Esq.

June 11. — A paper, by Dr. Prout, was read, on a new acid principle prepared from lithic or uric acid. The beautiful purple substance produced by the action of nitric acid and heat upon lithic acid has been long known to chemists. This substance Dr. P. has shown to be a compound of a peculiar acid with ammonia.

This acid principle, which may be likewise formed from the lithic acid by chlorine and iodine, possesses the remarkable property of forming beautiful purple compounds with the alkalis and alkaline earths; hence the name of *purpuric* acid has been adopted by Dr. P. which was suggested by Dr. Wollaston.

Purpuric acid may be separated from the purpuret of ammonia, before mentioned, by the sulphuric or muriatic acids. It usually exists in the form of a light yellow or cream-coloured powder. It is exceedingly insoluble in water, and consequently possesses no taste, nor affects litmus paper, though it readily decomposes the alkaline carbonates by the assistance of heat. It is soluble in the strong mineral acids and in alkaline solutions, but not in dilute acids in general. In alcohol it is insoluble. When exposed to the air, it assumes a purple colour, probably by attracting ammonia. Submitted to heat, it is decomposed, and yields carbonate of ammonia, prussic acid, and a little fluid of an oily appearance. Burned with the oxide of copper, it was found to consist of

Hydrogen	4·54
Carbon	27·27
Oxygen	36·36
Azote	31·81

The alkaline purpurates, as before observed, all form solutions of a beautiful purple colour. They are capable of crystallizing, and their crystals possess some remarkable properties. The purpurate of ammonia crystallizes in quadrangular prisms, which, when viewed by transmitted light, appear of a deep garnet red; but by reflected light, two of the opposite surfaces appear of a beautiful green, while the other two opposite surfaces appear of the natural colour. This curious property seems to be possessed by the other alkaline purpurates. The metallic purpurates are, in general, remarkable for their solubility and the beauty of their colours. The purpurate of zinc is of a beautiful gold yellow, the purpurate of tin of a pearly white, that of the other purpurates are more or less of a red colour.

Dr. P. thinks it probable that this acid forms the basis of many animal and vegetable colours. The pink colour of the sediment in the urine of fever seems to be owing to the purpurate of ammonia.

Dr. P. also thinks that some of its salts might be used as paints, and also for dyeing, as they appear to possess strong affinities, especially for animal substances.

Geological Society.—*April* 3.—A paper was read, from Dr. Brewster, on the form of the integrant molecule of carbonate of lime.

Dr. B. has discovered that the striæ passing through the long diagonals of two opposite planes of the primitive rhomboid of carbonate of lime are occasioned by their traversing veins composed of rhomboids of different thicknesses, having their faces placed transversely to those of the rhomboid which they traverse, and adhering firmly to the two surfaces between which they are interposed. Dr. B. rests the proof of this fact on the action which the surface of the crystal exerts on a ray of light. He concludes that the integrant molecule is not a trihedral prism, as Count Bournon supposed, since the transverse cleavage of the primitive rhomboid exists only in those specimens which are crossed by intersecting veins.

A paper was read from A. S. Lillingston, Esq. on granite veins and whin dykes, in which he explains these appearances on the supposition that the beds containing the veins were deposited upon the mass of which the vein is a portion, while that mass was in a fluid state; and that the deposited beds were the first to become hard, in consequence of which they contracted, thus occasioning fissures which were subsequently filled by the subjacent fluid mass.

The author also supposes the red marl stratum to have been produced from the destruction of beds of whin stone, fragments of which abound in it, as may be observed in Devonshire, Northumberland, and other places.

A letter was read, from the Rev. W. Gilpin, on certain fossil bones found near Margate. These bones, in the state of fragments, occur in the hard, white, calcareous clay which overlies the extremity of the chalk cliff extending along the coast to the westward of Margate. The bones lie at least 10 or 12 feet below the surface, and are surrounded by a dark, friable substance, similar to decayed animal matter.

April 17.—A second paper was read, from George Cumberland, Esq. on some new encrinital and pentacrinital bodies found in the neighbourhood of Bristol. It affords much interesting and curious information concerning the class of bodies of which it treats, but which cannot conveniently be detached from the illustrative series of drawings by which it is accompanied.

May 1.—A paper was read from George Cumberland, Esq. consisting of a descriptive catalogue of specimens of the Bristol limestone beds, from their transition from the sandstone, to their termination at a place called Cook's Folly, nearly the whole of which Mr. Cumberland has measured. The series consists of above 300 beds, from one inch to 30 feet in thickness.

A paper was read, from Francis Lunn, Esq. on the strata of the northern division of Cambridgeshire.

Mr. Lunn observes, that the ferruginous sand is the lowest stratum found in Cambridgeshire; on this rests the blue marl, having in many places the line of their junction very well defined: the sand contiguous to the clay is generally cemented by a large portion of oxide of iron into a hard, rocky substance. The sand contains fossil wood; the clay contains carbonate and sulphate of barytes. The temperature of the water in all the wells sunk through the clay, is about 47° Fahrenheit, and is nearly invariable throughout the year.

May 15.—The following notices were communicated by M. Leman, M.G.S. through Mr. Heuland, For. Sec.

On Mica.—M. Biot has lately divided this mineral into two species. When submitted to the action of polarized light, the coloured rings which are produced are traversed in the first species by two axes in the form of a black cross; and in the second species by a second axis or black band, passing through their centre. The surfaces of the first species are smooth and brilliant, while those of the second are dull and finely furrowed. M. Vauquelin has found a difference in the chemical constituents of the two species. Crystallography appears to admit as the primitive form of mica either a right or an oblique rhombic prism. Is it not probable that these may be the respective primitive forms of the two species?

On Wallerite, or Linzinite.—Dr. Dufour, of St. Sever, Dept. des Landes, has lately discovered near that place, in a bed of clay, a substance externally resembling lithomarga. It appears, however, from an analysis of it by M. Laugier, to contain

Silex	32
Alumine	37
Water	27
Sulphate of lime	3
	99

It may, therefore, be considered as a siliceous hydrate of alumine.

Linnæan Society.—*May* 5.—A continuation of the Rev. Mr. Kirby's century of new insects was read.

May 25.—The following is the list of officers for the ensuing year.

President.—Sir James Edward Smith, M.D.

Vice-President.—Samuel Lord Bishop of Carlisle; Aylmer Bourke Lambert, Esq.; William George Maton, M.D.; Edward Lord Stanley.

Of the Council, in place of five Members who go out.—John Duke of Bedford; Mr. Andrew Foster; Thomas Andrew Knight, Esq.; Thomas Reynolds, Esq.; Sir George Thomas Staunton, Bart.

Treasurer.—Edward Forster, Esq.

Secretary.—Alexander M'Leay, Esq.

Under Secretary.—Mr. Richard Taylor.

June 2.—A paper was read, by Captain Carmichael, on the genus pandanus.

June 16.—A letter was read, addressed to the Rev. Mr. Kirby by the Rev. Revett Sheppard, on the position of the toes in certain genera of birds.

The woodpecker tribe have four toes on each foot, two before and two behind; which arrangement, according to Ray and all subsequent naturalists, is for the purpose of enabling them to climb with facility. According to Mr. Sheppard, there are six genera of birds *pedibus scansoriis*, viz. psittacus, cuculus, picus, rhamphastus, trogon, and bucco.

The common cuckoo, which is one of these, though furnished with two toes before and two behind, is never known to climb at all; while the nuthatch (sitta europea) and tree creeper (certhia familiaris) have their toes placed in the usual manner, viz. three before and one behind, and yet run up and down trees with great facility. From these and similar cases Mr. S. considers the *pes scansorius* as intended not for climbing, but for secure prehension; and hence it is found in the woodpecker and others, which, having to procure their food by penetrating the wood with their strong bills, require a firm footing, which is effected by the arrangement of their toes, as already stated.

PLATE PRESENTED TO DR. PARIS.

On Tuesday the 16th instant, a deputation of noblemen and gentlemen, of the county of Cornwall, waited upon Dr. Paris, at his house in Dover Street, with a magnificent present of plate for his acceptance. The inscription, which is engraved on a massy silver waiter, records the services for which it was given. "To John Ayrton Paris, M.D. F.L.S. Fellow of the Royal College of Physicians of London, this plate is inscribed by the noblemen, representatives in Parliament, and gentlemen of the county of Cornwall, in testimony of their grateful sense of his services, in originating the Plan, and promoting the Institution of the Royal Geological Society of the county, which has rendered their home the school of science, and their native riches increasing sources of prosperity."

At the Annual Meeting of the Associated Apothecaries and Surgeon-Apothecaries of England and Wales, held by public Advertisement, at the Crown and Anchor Tavern, in the Strand, July 15, 1818, (agreeably to the nineteenth Resolution of the General Meeting in August, 1817,)

The Ninth Report of the General Committee was read, as follows:

Having carefully pursued the objects to which the endeavours of this ASSOCIATION have been constantly directed, the Committee present this Report of their proceedings with the hope that they shall not be considered as having failed in performing the duties of the important trust to which they had the honour of being appointed.

Although they have not to report the employment of any particularly active measures, they are happy in having it in their power to state, that they have vigilantly sought for, and assiduously availed themselves of, every opportunity to obtain such arrangements as might most effectually guard the public health, and best support the respectability of the profession.

Gratified by every prospect of preventing ignorant and unqualified persons from acting as general practitioners in medicine and surgery; your Committee thought proper, soon after their appointment, to no-

tice publicly in terms of congratulation the advantages which might be expected to result from the operation of the "Act for better regulating the practice of Apothecaries throughout England and Wales;" and under the direction of the Court of Assistants of the Society of Apothecaries, and from the advertisement published by the Society of Apothecaries, declaring their determination to prosecute such persons as infringed its regulations.

Your Committee felt, however, that only a part of the evils which they opposed could be thus removed; for although society would be benefited to a considerable extent, by preventing the practice of medicine from falling into the hands of untaught pretenders, still if such persons, deficient in all requisites, should be permitted to engage in the practice of surgery and of midwifery, a wide range would still be left them for the waste of human life.

It was, therefore, with great satisfaction that your Committee learnt that the Royal College of Surgeons, in London, "Considering that ignorant and incapable persons are not restrained by law from practising surgery, whereby the health of great numbers of persons is much injured, and the lives of many destroyed;" had introduced a Bill into the House of Commons for *regulating the practice of Surgery throughout the united kingdoms of Great Britain and Ireland.*

It was proposed by this Bill, that it should not be lawful for any person to practise surgery for lucre or profit, unless he should have been personally examined as to his fitness thereto by the Royal College of Surgeons in London, or by some other of the Royal Colleges of Surgery. In this Bill also a clause was inserted to prevent any male person from practising midwifery, (showing to the Universities and the College of Physicians severally their established rights,) unless he should have obtained a diploma or testimonial in the manner prescribed of his knowledge and ability to practise surgery; or of his being a principal Surgeon in the army or navy, and of his having actually served in that capacity; or unless he should have obtained the degree of Doctor or Bachelor of Medicine from an University in the united kingdom.

Your Committee believing that the enactments of this Bill were such as would prevent the future admission of uninformed and illiterate persons to the practice of surgery, were extremely anxious that it should pass into a law. But it also appearing that sufficient security would not be obtained by the enactment of this Bill, against persons practising midwifery without the necessary qualifications; an examination being therein required only as to their knowledge and ability to practise surgery, the Committee presented a petition to the Honourable the House of Commons, *pro formâ*, (for the purpose of making themselves parties to the Bill,) with a hope that they might be enabled to obtain such modifications of the clause in question as might secure the efficient examination of every man proposing to enter on the practice of midwifery.

As a tribute of respect, your Committee acquainted the Court of the Royal College of Surgeons, in London, with its proceedings, and was highly gratified to find that a disposition existed in that learned

and respectable Body to promote the attainment of this most important object of its wishes. Determined to take no steps which might prevent the passing of a Bill, which, when modified, would have produced so much good, your Committee carefully avoided any impeding interference, declared their general approbation of the Bill, and waited its going into a Committee to suggest such regulations as might appear to be necessary. But they cannot avoid expressing their regret that the Bill was not allowed to go into a Committee of the House of Commons, where its merits might have been appreciated, and such alterations introduced as would have secured the interests and welfare of the public, so far as concerns the practice of surgery and midwifery.

Fully sensible of the importance of the general objects of that Bill, your Committee ardently hope that the period is not far distant when the subject will be taken into serious consideration by Parliament itself.

Every member of the Legislature must have felt that knowledge is at all times preferable to ignorance, and especially so when the dearest interests of social life are at stake.

The loss of the Bill must, therefore, be attributed to either misrepresentations, or to the omission on the part of the Petitioners of supplying the House of Commons with those facts which would have demonstrated the necessity of the regulations for which they prayed.

In either case it appears to your Committee, that it is necessary for this Association to prepare for a more auspicious period. To seek for and collect such facts as may effectually oppose the misrepresentations of ignorance and prejudice, and to furnish the Legislature with such information as may enable it fairly to judge of the merits of our claims, appears to be a duty, the performance of which this Association cannot refuse to undertake. But to ensure the performance of this duty, it is indispensably necessary that the Association should adopt certain previous measures, by which both its stability, and a regular distribution of its labours, shall be secured.

The measure which your Committee must first suggest, regards the duly organizing of the Association into a Society, bearing an appropriate designation, and regulated by fixed laws. The necessity of this must appear when it is considered, that at present the Association is almost without a defined object; that its rules and regulations are wholly incomplete, and scattered through the numerous resolutions passed at various Meetings of the Committee and of the Association. In fact, as its laws consist solely of certain resolutions, hastily formed on various occasions, to meet emergencies as they have arisen; your Committee think it right, earnestly to recommend to the General Meeting, that *steps be immediately taken to give to this Association a determinate name, form, and object;* and that a Committee be appointed to embody the existing Resolutions into a code of Rules and Regulations, for the government of the Society; and as soon afterwards as may be to lay the result before a Special General Meeting, to be convened for that purpose, making therein such alterations and improvements as shall appear necessary.

Whilst thus modelling the Society, the Committee would make those arrangements by which Committees should be formed in the different counties of England and Wales. The business of those Committees would be to watch over the operation of the Act for better regulating the practice of Apothecaries throughout England and Wales, in their respective neighbourhoods; and to correspond with the parent Society; transmitting to them such facts, duly authenticated, as may furnish the Legislature with the means of fairly judging as to the mischiefs arising from the unrestrained admission of ignorant and uneducated men to trifle with the health and lives of their fellow-creatures.

In this manner, when time shall have given to the "Apothecaries' Act" its full effect, the vigilance of the district Committees will probably enable the Society of Apothecaries, even with the present imperfect powers of their Act, to put down the majority of irregular and unqualified practitioners.

Your Committee suggests also the propriety of directing, that whilst the proposed regulations are forming, provision should be made against uneducated persons becoming members of this Association; for on referring to one of its Resolutions, it appears that any person may at present demand his admission on the payment of one guinea; a circumstance assuredly which, as liable to great abuse, was not within the contemplation of those who formed the Resolution.

STATE OF THE FUND JULY 14, 1818.

1817. *Dr.*	£.	s.	d.
Sept. 1. Disbursements by Dr. Burrows	12	11	11
2. Paid by order of the General Meeting, Aug. 20	630	0	0
Advertising, due August 1817	16	3	8
18. £500 3 per cents Reduced	415	12	6
1818.			
July 14. Law Expenses, Printing, Stationary, Advertisements, and sundry Disbursements	49	8	4
	£1123	16	5

Cr.	£.	s.	d.
Balance last Audit	220	19	4
By new Subscriptions	3	3	0
By Sale of Exchequer Bill	1024	17	6
	£1248	19	10
	1123	16	5
Balance	£125	3	5

£500 Three per Cents Reduced.

The following Resolutions were passed:—

1st, Resolved Unanimously,

That the Report of the General Committee, now read, be received and adopted.

2dly, Resolved Unanimously,

That the Thanks of this Association be given to the General Committee, for their zeal and ability in forwarding the objects of this Association, and that they continue permanent.

3dly, Resolved Unanimously,

That Messrs. Fernandez, Hurst, Acret, and Fincham, be added to the General Committee; vice Messrs. Henerby, Cooke, Reginald Williams, and Briden, resigned.

4thly, Resolved Unanimously,

That, as it appears the form and objects of this Association are not at present sufficiently defined, the General Committee be instructed to take this matter into their consideration; and to lay before a General Meeting, to be called as soon as may be for that especial purpose, such a code of Rules and Regulations as may appear to them most conducive to the future welfare of the Association; and that they be particularly instructed to provide for the formation of District Committees, and for the future admission of proper Members only into the Society, as mentioned in the Report of the General Committee.

5thly, Resolved Unanimously,

That the operation of the sixteenth Resolution, passed at the General Meeting of 1817, allowing the enrolment of additional Members into the Association on the subscription of one guinea, be suspended until the Report of the Committee of Rules and Regulations has been received.

It having been urged by Mr. Parkinson, that the Chairman should be elected annually, and that the Meeting should proceed to the election of that officer, it was—

6thly, Resolved Unanimously,

That the best Thanks of this Meeting are due to James Parkinson, Esq. for the great ability and unremitting zeal with which he has conducted the business of the Association; and that he be requested to continue in the office of Chairman for the present.

7thly, Resolved Unanimously,

That the Thanks of this Association be cordially given to Mr. John Powell, of Newman Street, for the great attention and accuracy with which he has filled the office of Secretary during the last year; and that he be requested to continue his services for the present.

8thly, Resolved Unanimously,

That the sum of fifteen guineas be presented to Mr. Powell, the Secretary, as an acknowledgment of the sense which the Association entertains of his zeal and activity, in fulfilling the duties of his office during the last twelve months.

9thly, Resolved Unanimously,

That this General Meeting do particularly recommend to the General Committee, to make a Special Report to the next General Meeting of their opinion on the most effectual means of obtaining a Board for the examination of persons intending to practise Midwifery.

10thly, Resolved Unanimously,

That the Thanks of this Association be given to the Treasurers for their services; and that they be requested to continue in the office for the present.

11thly, Resolved Unanimously,

That the Editors of the London Medical Journals be requested to oblige this Association by inserting the Report of the Committee, the State of the Funds, &c. in their respective publications.

12thly, Resolved Unanimously,

That the Thanks of this Association be given to the Sub-Committee for the labour and great pains they have taken in drawing up the Report.

JAMES PARKINSON, Chairman.

13thly, Resolved Unanimously,

That the Thanks of this Meeting be given to the Chairman, Mr. Parkinson, for the able manner in which he has conducted the business of the Meeting. JOHN POWELL, Secretary.

July 15, 1818.

LITERARY NOTICES.

Dr. Ayre, of Hull, is about to publish Practical Observations on the Nature and Treatment of those Disorders which may be strictly denominated Bilious.

Mr. John G. Mansford, of Frome, Member of the Royal College of Surgeons, of London, has in the press an Inquiry into the Influence of Situation on Pulmonary Consumption, and on the Duration of Life. Illustrated by Statistical Reports.

LECTURES.

Dr. J. B. Davis gave his Introductory Lecture on the "Diseases, Medicinal Management, and Nursing of Children," on the 18th ult. at the Universal Dispensary for Children, and continues to give his Lectures on this branch of the practice of medicine, every Monday, at twelve o'clock, at the above Institution.

Mr. Gaulter will deliver his Course of Lectures on Physiology in October next.

Biographical Sketch of the late Dr. Adams, *who died at his House in Hatton Garden, June* 20, 1818.

In our last Number we announced the lamented death of Dr. Adams, and there stated an intention of relating a few particulars respecting the life of this eminent Physician.—This melancholy duty we now sit down to fulfil.

Dr. A., like many of his professional brethren, who have ultimately obtained a name and high character as Physicians, commenced his career as a general practitioner. His father was also an Apothecary of great respectability in the metropolis, and a branch of the family of Sir Thomas Adams, who was mayor of London; and in 1645, Joseph, the subject of the present memoir, was selected by his father as his successor, on account of the early disposition discoverable in him to literary pursuits. Mr. Adams being a member of the Apothecaries' Company, had his son apprenticed to him, in order that he might obtain the pecuniary and other advantages possessed by the members of that society. It was under the tuition of Dr. Pitcairn and Mr. Pott, at Bartholomew's, that Joseph commenced his hospital studies, which were afterwards continued at Guy's Hospital, and at St. George's, where he became a pupil of the celebrated John Hunter. His acquaintance with, and attachment to that extraordinary character, gave a particular cast and

colour to the whole of Dr. Adams's subsequent life; and there is no one, who has the most slender acquaintance with modern medicine, ignorant of the successful exertions made by our author to illustrate the tenets and defend the doctrines of that great master in physiology. In all this the subject of the present memoir ever appeared in a meritorious and amiable light: but to those who were more indifferent than him to Mr. Hunter's fame, it did occasionally appear, that in his zeal to defend his master, Dr. A: displayed a partiality bordering upon enthusiasm.

The first and greatest work which appeared from the pen of Dr. Adams, was his "Observations on Morbid Poisons;" a book which is in the library of every practitioner, and on the merits of which it were a work of supererogation to descant.

It was at the suggestion of Dr. Saunders, who procured our author a degree, that he was tempted to try Madeira as the theatre of his professional exertions; at which place he resided for eight years, and after that period returned to Britain. The investigation of the nature and peculiarity of morbid poisons being one of his principal pursuits, Dr. A. now took the pains of visiting the west of Scotland, for the express purpose of witnessing the peculiarities of the disease called sivvens, which has been confounded with the venereal disease, and maintained by some to be a modification of the syphilitic virus. This supposition Dr. A. has endeavoured to prove is founded in error.

When Dr. Adams arrived in London, he found the situation of Physician to the Small-pox Hospital vacated, by the death of the late Dr. Woodville. He immediately became a candidate for that appointment, and was elected to it without opposition. This appointment must have been received with particular satisfaction to his mind, as indicative of the high estimation in which his talents and acquirements were held. "Even the laws of the Hospital and the statutes of the College of Physicians were dispensed with on this occasion; and a member of the Apothecaries' Company was appointed, by universal consent, Physician to an Hospital, on the reports of which, the expectation of the whole kingdom was at that time fixed."

Dr. Adams, too, like Dr. Babington, was admitted a licentiate of the London College of Physicians, without having resided at a medical university, according to the statutes of that Body. This was another gratifying proof of the well-earned fame which had attended his strenuous exertions to advance the cause of medical science.

Having been thus constituted a member of the London

College of Physicians, and physician to the Small-pox Hospital, at the time when the merits of vaccination were discussed in every circle, and canvassed in all parts of the world, it was natural enough to expect from our author a systematic publication of his opinion on the still contested point of vaccine security against variolous infection; and accordingly, some pamphlets shortly made their appearance from his able pen on these important topics. Dr. Adams has been charged by some of his cotemporaries, as having in his last publication respecting epidemic and contagious diseases, expressed himself with too much reserve and qualification on the claims and merits of vaccination; and it has even been insinuated that he was in reality a covert enemy to the cause of cow-pox, while professing to measure its claims. On this delicate subject, it is not for the writer of this memoir largely to descant. He can only say, that in all the conversations and communications he had with his now departed friend on this subject, there ever appeared any thing but equivocation and reserve; and that even recently, while the faith of some has been shaken by several untoward occurrences, Dr. Adams both publicly and privately maintained, that the more he saw of the two inoculations, the more firm did his convictions daily become of the security which vaccination ensured when properly performed. Now it is fair to infer, that had Dr. Adams penned his publication under the influence of such motives as have been attributed to him, he would have been ready to seize hold of the circumstances which have lately appeared to militate against vaccination; and instead of endeavouring to explain them away, would have turned them to account in favour of variolous inoculation. It has been judged proper by the writer of this article, to advance thus much in vindication of his friend's memory: and it is painful to him to have found it necessary even to say any thing respecting Dr. A. in the way of apology and defence.

The circumstances of his death were somewhat extraordinary. While walking in a field near Holloway, on Sunday, the 7th of June, he stepped into a rut in the ground concealed by some straw, and fractured both the tibia and fibula of his right leg: the fracture was compound; but by the skill and attention of the several surgeons who were summoned to his assistance, every thing promised fair towards union of the bones and ultimate recovery. In this state he continued; and on the evening of the twelfth day from the accident he smilingly said to the assembled surgeons, that were it not for the memorials of illness that appeared about his leg, he should imagine himself as well as any of

them. This was said less than twenty-four hours before his departure: it was on Friday evening: and on the following day, at noon, the writer of this paper received from him a message of nearly similar import, viz. that he was going on very comfortably and well. He took his dinner on that day at five o'clock: at about half past five, or near six, Mrs. A. observing him to turn pale, summoned medical assistance immediately, and in less than half an hour from this time the eyes of our friend were for ever closed in death. His departure was without a struggle, and without a groan. No examination was made of the body, and the actual cause of his death must ever remain somewhat mysterious. Had there been rupture of vessels, or effusions into vital organs, in connection with the accident by which the leg was fractured, it is fair to presume that the symptoms would have been *ab origine* more or less indicative of such occurrence. Dr. Adams was short in stature, and somewhat of that make which is supposed to conduce to sudden death: the writer, moreover, is informed that there have been previous instances of sudden death in the family. His age was sixty-two. He was married, but had no progeny.

Such is a brief outline of the life and death of a man, whose departure has left a chasm in the medical corps, which it will not be easy effectively to fill up. The Medical Society of London, over which Body he presided for the accustomed period, with the highest satisfaction to his associates, will especially feel his loss. His attachment to, and attendance upon that Society, was, to the last, firm and constant; and both his oral and written communications to it were always characteristic of a mind endued with scientific lore, and of a disposition freely to impart to others what he knew and thought himself. He had been President also of the London Philosophical Society, and had recently delivered before that Society the anniversary oration.

To Dr. Adams' private worth; to his humanity, his liberality, and his general goodness of disposition, the writer of this memoir can bear personal and particular testimony: and with regard to his failings, (for who is faultless?) they seemed almost solely to exist in an overweening desire for contemporary reputation, and an undue irritability to critical animadversion. It is, or ought to be, the business of a public character, to proceed onward in a straight forward course, and not turn to the right or to the left, either to court praise or deprecate censure. Indeed, to complain of the injustice and severity of criticism, is ever to kick against the pricks; it is to permit the pain of wounded feeling to warp the decisions of sober judgment.

D. U.

A METEOROLOGICAL TABLE,

From the 21st of MAY to the 20th of JUNE, 1818*,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Min.		Therm. Max.	Min.	Rain Gauge.	Winds.	Weather.
21	29	94	29	91	64	38		NE..E.	1 Sun...
22	29	96	29	96	67	41		SE.	1 Sun...
23	30	02	29	99	68	40		E.NE.	1 Sun....
24	30	05	30	03	68	42		NE.ESE.	1 Sun....
25	30	04	30	04	60	47		NE.E.	1 Sun.... 3 Cloud..
26	30	05	30	05	68	45		EbS.NE.	14 Cloud... 23 Sun..
27	30	01	29	95	66	43		NE.E.	1 Cloud.. 2 Sun....
28	29	93	29	88	60	44		N.	14 Cloud... 23 Sun..
29	29	90	29	82	58	36		N..	134 Cloud... 2 Sun..
30	29	75	29	67	67	45		NW.E.	1 Sun....
31	29	66	29	66	72	47		WNW..	1 Rain. 2 Sun.
1	29	69	29	69	75	48		WSW..	1 Sun..
2	29	74	29	71	78	51		WSW.	1 Sun..
3	29	83	29	80	80	50		SW.	1 Sun...
4	29	95	29	93	79	50		Vble.	1 Sun.... 2 Cloud...
5	30	05	30	03	83	52	03	Vble.	1 Sun... 3 Rain. 4 Starl...
6	30	05	30	05	72	52		Vble.NE..	1 Sun.... 4 Mist...
7	30	06	30	06	72	46		N.NE..	1 Sun....
8	30	08	30	04	73	43		NE.ESE..	1 Sun....
9	30	02	29	97	76	45		NE.ESE..	1 Sun...
10	29	94	29	88	77	50		ESE..	1 Sun....
11	29	78	29	75	82	56		ESE..	1 Sun....
12	29	68	29	59	85	53		SE..	1 Sun.... 3 Th.. R. & Sun...
13	29	65	29	58	81	49		SW..	1 Sun.. 2 Cl... 4 Moon...
14	29	78	29	69	71	47		NE..	1 Cloud... 2 Sun..
15	29	63	29	59	74	52	01	SW..	13 Sun.. 2 Show. 4 Moon..
16	29	42	29	38	75	56	05	SW..	1 Sun.. 2 Cloud... 4 Rain.
17	29	43	29	40	70	49	10	SW.	1 Rain.. 2 Cl..3 Sun. 4 M...
18	29	51	29	44	73	45		SW..	1 Sun..
19	29	13	29	09	67	53	05	SW..SE.	1 Sun.. 2 Showers.
20	29	52	29	44	69	45	10	SW.WSW...	13 Sun.. 2 Show.. 4 Starl...

The quantity of rain during the month of May was 2 inches 41-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were Anasarca, Asthenia, Cynanche tonsillaris, Diarrhœa, Dyspepsia, Epistaxis, Febris continua, Hydrothorax, Icterus, Obstipatio, Ophthalmia, Phthisis pulmonalis, Pneumonia, Scarlatina, and two cases of Variola.

* This Table was omitted in the last Number, from some mistake with respect to its conveyance.

A METEOROLOGICAL TABLE,

From the 21st of JUNE to the 20th of JULY, 1818,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Barometer. Min.		Therm. Max	Therm. Min.	Rain Gauge.	Winds.	Weather.
21	29	48	29	29	71	55	10	SW..	1 Cloud.. 2 Showers..
22	29	29	29	29	68	48	05	SW..	1 Show. 4 Starl...
23	29	54	29	50	68	46	01	SW..WSW..	1 Sun.. 3 Showers.
24	29	72	29	67	67	49		W..	1 Sun... 3 Sun..
25	29	60	29	47	69	55	03	S.SW...	1 Shower. 3 Sun..
26	29	68	29	61	78	50		SW..	1 Sun..
27	29	37	29	33	84	54		SE..SW..	1 Sun..
28	29	76	29	69	74	44		SW..WbN..	1 Sun...
29	29	89	29	85	75	52		SW..	1 Sun...
30	29	81	29	77	72	55		WSW..	124 Cloudy... 3 Sun..
1	29	81	29	80	68	46		W..NE..	1 Show. 2 Cl.. 3 S.. 4 Star..
2	29	88	29	87	68	38		N..EbN..	1 Sun..
3	29	80	29	72	69	47	03	NW.	1 Sun... 2 Rain. 24 Cloud..
4	29	76	29	74	74	52		NW.NE.	1 Sun..
5	29	79	29	78	79	50		NW.	1 Sun... 2 Sun..
6	29	79	29	70	82	55		NW.NE.	1 Sun... 2 Sun..
7	29	55	29	49	82	57	29	NE.SE.	1 Sun..24 Cl..3 Th..L..R...
8	29	74	29	68	67	47		SW.NbW..	1 Rain. 2 Sun...
9	29	82	29	69	74	53		SW..	1 Sun.... 2 Sun.. 3 Cloud..
10	29	66	29	64	71	46		W..	1 Cloud.. 2 Sun..
11	29	58	29	53	78	51		SW..	1 Sun..
12	29	53	29	53	76	53		SW.	1 Sun.. 3 Cloud..
13	29	83	29	78	78	56		Vble.NW..	1 Cloud.. 3 Sun...
14	29	98	29	96	81	52		NW.NE.	1 Sun.. 3 Sun...
15	29	96	29	90	84	58		Vble.SW.	1 Sun...
16	29	90	29	88	87	58		W..	1 Sun...
17	29	86	29	80	88	58		SSW.SE.	1 Sun.... 2 Su..3 Sh.4 Cl...
18	29	76	29	73	82	60	13	SE.	13 Cloud.. 2 Sun... 4 R..
19	29	73	29	73	78	57	1.16	Vble.	1 R.. 2 S.. 3 Th.. L.. R....
20	29	71	29	61	75	54	04	Vble.	1 Sun.. 3 Rain. 4 Cloud..

The quantity of rain during the month of June was only 53-100ths.

The weather in this period has been hotter than usual, and the district more healthy. The two cases of Variola mentioned in the preceding Report have done well, and the disease has not spread, as most of the children in the neighbourhood had been previously vaccinated.

Observations on Diseases at Richmond.

The disorders under treatment were Asthma, Diarrhœa, Dysuria, Febris ephemera, Febris puerperalis, Febris typhodes, Gastrodynia, Hysteria, Icterus, Obstipatio, Paralysis (which suddenly proved fatal, being the second attack), Scarlatina, and Vertigo.

THE METEOROLOGICAL JOURNAL,

From the 20th of JUNE to the 19th of JULY, Inclusive.

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Thefm.			Barom.			De Luc's Hygrom. Dry.	Damp.		Winds.		Atmo. Variation.		
20			61	67	51	29 66	29	85		10	12	WSW	WSW	Fine	Rain	Fine
21		,07	54	62	50	29 92	29	91		14	14	SW	SW	Fine	Clo.	—
22			57	64	50	29 59	29	61		16	10	SW	SW	Rain	—	—
23		,10	60	65	59	29 80	29	86		2	7	SW	SW	Fine	—	—
24			62	70	64	30 30	30	41		11	9	NW	SW	Fine	—	—
25	☽		67	75	65	30 12	29	99		6	6	SW	WSW	Clo.	Fine	—
26			67	76	66	30 00	30	00		5	7	SW	SSW	Fine	—	—
27			69	79	62	30 00	29	73		6	5	WSW	SW	Fine	—	—
28			67	78	58	29 79	30	02		5	5	SSW	SW	Fine	—	—
29			65	80	60	30 00	30	00		6	5	SW	SW	Fine	—	—
30		,04	69	79	60	30 21	30	18		7	3	SW	WSW	Fine	—	—
1	☾		65	77	60	30 12	30	03		3	10	W	NW	Fine	—	Rain
2			63	70	58	30 10	30	13		10	7	NE	SE	Fine	—	—
3			63	69	60	30 09	30	03		8	9	NW	NW	Fine	—	—
4			67	71	63	30 03	30	05		10	7	NW	NW	Fine	—	—
5			69	79	65	30 01	30	05		8	6	NW	WNW	Fine	—	—
6			71	81	62	30 00	30	07		3	3	W	SSE	Fine	—	—
7			67	78	58	30 06	30	00		5	4	SE	W	Fine	—	—
8			61	71	60	30 00	30	01	0	0	2	WNW	NW	Fine	—	—
9			65	73	60	30 03	30	10		7	3	NNW	NW	Fine	—	—
10			67	76	65	30 00	30	00		5	5	N	SW	Fine	Clo.	—
11	☾		69	75	67	29 98	29	81		7	9	N	W	Fine	—	Rain
12			68	77	65	29 78	29	77		11	12	SW	W	Rain	Clo.	—
13			69	77	67	29 76	29	79		10	10	SE	SE	Fine	—	—
14			70	79	69	29 99	30	21		5	4	SW	W	Fine	—	—
15			71	79	70	30 51	30	57		2	7	SE	SE	Fine	—	—
16			75	81	70	30 42	30	40		10	12	E	E	Rain	Clo.	Fine
17	●		70	76	70	30 35	30	30		7	9	SE	E	Fine	—	—
18			75	79	69	30 11	29	94		10	9	E	E	Fine	—	—
19			77	82	71	29 90	29	94		11	9	E	NE	Fine	—	—

The quantity of rain fallen in the month of June is 35-100ths only.

A REGISTER OF DISEASES

Between JUNE 20th and JULY 19th, 1818.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	6		Febris *Puerpera*	1	1
Abscessio	7		—— *Remit. Infant*	17	
Amaurosis	4		Fistula	1	
Amenorrhœa	15		Gastrodynia	15	
Amentia	4		Gonorrhœa *pura*	7	
Anasarca	14	2	Hæmoptöe	9	
Aphtha *lactentium*	9		Hæmorrhois	11	
Apoplexia	5	2	Hemiplegia	2	
Ascites	8	2	Hepatalgia	3	
Asthenia	17		Hepatitis	19	
Asthma	6		Hernia	1	
Atrophia	1		Herpes *Zoster*	2	
Bronchitis *acuta*	3		—— *labialis*	2	
—— *chronica*	1		Hydrocele	1	
Cancer *uteri*	2	1	Hydrocephalus	2	2
Carbunculus	2		Hydrophobia	1	
Cardialgia	6		Hypochondriasis	1	
Carditis	1		Hysteria	7	
Catarrhus	19		Icterus	3	
Cephalalgia	6		Impetigo *figurata*	2	
Cephalæa	2		Ischias	3	
Chlorosis	2		Ischuria	3	
Chorea	9		Leucorrhœa	12	
Cholera	27	1	Lichen *simplex*	3	
Colica *Pictonum*	7		Lithiasis	1	
Cystisis	1		Mania	6	
Cynanche *Tonsillaris*	13		Melancholia	1	
—— *Trachealis*	1		Menorrhagia	10	
—— *Parotidea*	1		Miliaria	1	
—— *Pharyngia*	2		Morbi Infantiles*	35	
Delirium Tremens	1		—— Biliosi*	30	
Diarrhœa	41		Nephritis	1	
Dolor lateris	3		Obstipatio	3	
Dysenteria	6		Odontalgia	10	
Dyspepsia	20		Ophthalmia	16	
Dyspnœa	1		Otalgia	3	
Ecthyma	3		Palpitatio	1	
Eczema	2		Paralysis	7	
Eneuris	1		Paronychia	2	
Enteritis	3	1	Peripneumonia	4	
Entrodynia	6		Peritonitis	5	
Epilepsia	5		Pertussis	27	1
Epistaxis	5		Phlogosis	4	
Erysipelas	8	1	Phrenitis	1	
Febris *Intermittent*	5		Phthisis Pulmonalis	15	6
—— *catarrhalis*	41		Plethora	2	
—— *Synocha*	1		Pleuritis	5	
—— *Typhus mitior*	18	2	Pleurodyne	10	
—— *Typhus grav.*	3	1	Pneumonia	7	1
—— *Synochus*	39		Podagra	6	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Porrigo *larvalis*	2		Scorbutus	2	
—— *decalvans*	2		Scrofula	7	
—— *scutulata*	1		Splenitis	1	
—— *favosa*	2		Strictura	5	
Prolapsus	2		Strophulus *intertinctus*	2	
Prurigo *mitis*	1		Syphilis	9	1
—— *senilis*	3		Vaccinia	15	
Psoriasis *guttata*	2		Varicella	8	
Purpura *simplex*	1		Variola	4	1
Pyrosis	2		Vermes	9	
Rheuma. *acutus*	14		Vertigo	17	
—— *chronicus*	21		Urticaria *febrilis*	3	
Roseola	1				
Rubeola	16		Total of Cases	959	—
Scabies	34		Total of Deaths		26
Scarlatina *simplex*	5				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

It will be observed, that our sum total of diseases for the present month is under the usual average. This, we are sorry to say, must not be taken as an index of the month having been less than commonly pregnant with diseases; but is owing to the failure of two of our reporters, who have not transmitted to us their usual returns.

Cholera and bilious affections are, as might have been anticipated from the extraordinary heat of the weather, seen to constitute a more than ordinary proportion in the table for this month. It may be expected, that our next return will be still more fruitful in this class of complaints.

Gastrodynia, or that kind of affection which is referred by the patient to the region of the stomach, but which is often obscure in its nature, and undefined in its position, has been exceedingly prevalent. In some cases, the oxyde of bismuth with rhubarb has appeared to exert a very decidedly remedial influence over these affections; in other cases, and apparently of the same nature, it has not answered the hopes of the prescriber.

One or two more instances of tabid disorder, connected with obstructed mesenteric glands, have been remedied by very small doses of the tincture of digitalis.

A case has occurred in the practice of the City Dispensary, of an extraordinary enlargement of one of the lower extremities, assuming somewhat of the character of the Barbadoes leg: the particulars of this case will be given in our next Number.

Another extraordinary case has occurred to us, in which, for months, there has been a temporary and periodical suspension of sensation and consciousness, without any marks of topical or vascular derangement. The detail of this case will likewise be given in the next, or an early Number, of the Repository.

The following Notice is from the Gentleman who furnishes us with the Meteorological Report from Richmond.

At page 525 of vol. ix. of the Repository, a case is mentioned of three ounces of tincture of opium having been taken without producing any other effect than vomiting. About twenty-nine years ago, a similar case occurred

to the reporter. One ounce of laudanum was swallowed at midnight: the person went to sleep, and rose at the usual hour, without having felt any effect from the dose; but very soon after leaving the bed, a vomiting commenced, which continued, at intervals, the whole day, particularly after taking any liquid: however, there was no return the following day, nor did the general health appear to be at all affected.

MONTHLY CATALOGUE OF BOOKS.

A Supplement to the Pharmacopœias, including, not only the Drugs and Compounds which are used by Professional or Private Practitioners of Medicine, but also those which are sold by Chemists, Druggists, and Herbalists, for other purposes; together with a Collection of the most usual Medical Formulæ; an Explanation of the Contractions used by Physicians and Druggists; the Medical Arrangement of the Articles of the London Pharmacopœia, with their Doses, at one View; a similar List of the Indigenous Plants of the British Islands, which are capable of being used in Medicine: and also a very Copious Index, English and Latin, of the various Names by which the Articles have been known at different Periods. By Samuel Frederic Gray, Lecturer on Botany and the Materia Medica, &c. 8vo.

Practical Observations on the Action of Morbid Sympathies; as included in the Pathology of certain Diseases. By Andrew Wilson, M.D. Kelso. 8vo.

Orfila's General System of Toxicology; or, a Treatise on Poisons, drawn from the Mineral, Vegetable, and Animal Kingdoms, considered as to their Relations with Physiology, Pathology, and Medical Jurisprudence. By M. P. Orfila, M. D. &c. &c. Second edition. 2 vols. 8vo.

Observations on the Nutritive Properties of Acacia Gum, and on the Uses to which it may be applied in Tropical Climates. By Richard Pearson, M. D.

Observations on a Stridulous Affection of the Bowels; and on some Varieties of Spinal Disease, with an Appendix of Cases. By. J. Bradley, M. D. 8vo.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Dr. Grumpretcht, Mr. J. C. Taunton, *and* X. Y.

We beg leave to remind our Correspondents, that although our stock of original matter is still pretty considerable, it will not so last for any length of time, unless aided by fresh increment.

The review of Newnham *on* inversio uteri, *which was announced for the present Nnmber, has been postponed, for reasons which will be obvious to the readers of the article when it shall appear. In the meantime, it may not be improper to say, that by the kindness of the Gentleman who has it in his possession, we have been favoured with a sight of the uterus, extirpated by* Mr. N.; *and that we think the case highly creditable to the skill and dexterity of the operator.*

An apology is likewise due to Dr. Burrows, *for postponing the notice of his recently published pamphlet on the subject of the London Registers of Diseases, &c. We have done so in the expectation of receiving some additional matter from the author.*

Errata.—In our last, page 56, line 16 from the bottom, for *consile* read *consili;* and the words "*and would*" in page 61, line 18 from the bottom, ought to have been omitted.

Communications are to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

No. 57. SEPTEMBER 1, 1818. VOL. X.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Remarks on Cranioscopy. By HENRY RONALDS, M.D. Member of the Royal Medical Society of Edinburgh, and Member of the Royal College of Surgeons of London.

(*Concluded from page* 103.)

VERY important objections to the physiognomical system are to be found in cases, which I confess are rare, of ossifications of the brain. In page 183 of his work, Dr. Spurzheim reviews cases of this kind, which have been handed down to us by men of distinguished eminence. In the year 1703, Duverney exhibited to the Academy of Sciences the ossified brain of an ox; and the fact was quite convincing to the members of that learned Body. Moreschi, Professor of Anatomy at Bologna, and Dr. Giro, maintain that they examined at Rovigo a similarly ossified brain. They cut it horizontally almost on a level with the corpus callosum, in order to examine the interior parts. They found the colour of the circumference different from that of the internal parts; but they did not distinguish the cavities, the thalami, or the corpora striata, or any vestige of the third or fourth ventricles. After attempting to refute other cases, which have all the appearance of being well authenticated, he proceeds to mention the ossification of the brain of a cow which was killed in Scotland, and came into the possession of Dr. Simson, of St. Andrew's. This, along with all the others, is regarded as an exostosis, or bony excrescence within

the skull; and its account is closed by the following statement:—"I repeat what we have always said, that if ever any brain be ossified, and the animal preserve the manifestation of the intellectual faculties, we shall be the first to declare, that our whole doctrine of the functions of the brain is a mere chimerical invention." Dr. Spurzheim has, I think, (rather inadvertently) decided too strongly upon this subject; for it is certain that a brain, having all the appearance of being perfectly ossified, is in possession of a venerable friend of mine, who has the greatest pleasure in exhibiting and relating its history to his friends. It is the identical brain of the cow killed at Fettercairn, in Scotland, and alluded to above as having been in the possession of Dr. Simson, of St. Andrew's. As I have had frequent opportunities of seeing this natural curiosity, I shall endeavour, in anatomical terms, to give its description. Upon viewing it horizontally it is of an oval shape, except that the apex is more pointed than belongs to the perfect oval, which exactly corresponds with the cavity of the skull of the ox species. Its colour externally is darkish brown. The eye is soon arrested by those peculiar and characteristic marks of a brain, the convolutions, the hemispheres, and the division of the lobes. On the anterior lobe is a roughness, presenting the appearance of its having formed an adhesion with the bones of the cranium. Upon close inspection we demonstrate quite as satisfactorily as on a recent brain, the cerebellum, the medulla oblongata, and the origin of the nerves. Lastly, on the upper surface is a large fissure made by the stroke of a hatchet, which gives a view of the medullary or white matter, forming its usual contrast with the cineritious or brown substance. This animal, up to the time of its being slaughtered, showed no other marks of indisposition farther than declining to take its usual quantity of food, and appearing to be rather unusually sluggish in its motions.

I hope the reader will agree with me, that it would be presuming too much to call this singular phenomenon an exostosis, or bony excrescence of the skull. Let it be asked, Can the irregular or diseased growth of a bone present itself as the fac-simile of a brain consisting of the cerebrum, cerebellum, medulla oblongata, and nerves, entirely filling up the cavity of the cranium? The answer to such a question is obvious.

With these undisputed facts before us, I think it would be rather bold reasoning to define the brain as the exclusive source of animal and automatical life; and it is next to impossible that such facts can be reconciled with the doctrine of the thirty-three organs of which the whole of intellectual life is said to consist. Throughout the system we must bear in mind that the science is purely demonstrative; that the organs

have correspondent impressions on the skull. To illustrate this, we shall take an example or two. Dr. Gall set boys in the street to fight each other, and then found elevations on the head, indicating the organ of combativeness*. "Two persons at Vienna were remarkable for their extreme irresolution: one day, in a public place, Gall stood behind them and observed their heads; he found them extremely large in the upper and posterior part of both sides of the head. Again, the organ evincing a perfectly opposite character, that of determinateness, is placed at the top of the head; and by referring to the plate it will be found that these two opposite propensities nearly join. Once on entering an hospital, Gall heard a mad woman uttering the grossest obscenities: he desired the attendants to go and observe her head, declaring that if they did not observe the head remarkably large behind, he would renounce all his opinions." Conceiving, therefore, that the shape of the head is an invariable index to these organs, diseases affecting the structure of the brainy mass would surely be expected to derange the economy of the corresponding functions.

2. The shape of the head of different nations possesses the greatest possible variety; and this diversity is sometimes produced naturally; but, unquestionably, sometimes among uncivilized tribes by human art alone. It is not essential to the present subject to enter into a history of the different forms of the human cranium. A few instances in which the peculiarity is strongly marked will be sufficient for our purpose.

Blumenbach possesses in his museum at Gottingen a great number of skulls of all nations, and to him we are almost solely indebted for a scientific account of the national variety in the human head. With the Europeans, the national form of the head approaches to a perfect oval, and this has been considered the most symmetrical figure. With the African, the forehead is remarkably flattened. The great peculiarity of the Chinese consists in the extraordinary breadth of the fore part of the cranium. The Turks are remarkable for a round or globular head; and what is singular, this form has

* "This organ corresponds to the posterior inferior angle of the parietal bone behind the mastoid process. The prominence was also found in the heads of brave and valiant officers, of quarrelsome students, of duellists, and of those whose greatest pleasure consisted in fighting, and making themselves feared. Gall, therefore, at first, called this organ that of courage. Considering afterwards that it is possible for a man to have courage to do any thing of which he thinks himself capable; for instance, to dance, play on an instrument, or sing, when he possesses no propensity to fight, he called this the organ of quarrelsomeness. At present he calls it the organ of self-defence."—*Dr. Spurzheim's Physiognomical System*, page 374.

been given chiefly by artificial means. It would be therefore difficult for the cranioscopist, who views the head as an invariable index to the mental functions, to comprehend how the Turks and some other nations can possess any intellectual existence at all. The former, by the compression of the turban, totally change the shape of the forehead. Blumenbach reports that the midwives of Constantinople generally inquire of the mother what form they would like to have given to the head of the child; and they usually prefer that which results from subjecting the forehead and occiput to closer compression, as they think the turban sits better on the head when of that shape. Thus the organs of* benevolence, individuality, comparison, tune, time, and others, must become extinct; neither can we, according to the new system, concede to them the organ of sexual love, the cerebellum to which this organ is attached being, with the Turks, comparatively small.

The negroes of the Caribbean Islands are said to flatten their children's heads, that their race may be distinguished from those who have submitted to the Spanish yoke. They have also the practice of moulding their children's heads into uncouth and monstrous forms, as an act of religion, or to extort charity. In this practice they are resembled by some other eastern nations. "The Caribs," says Labat, in his Voyage to the American Islands, "have their foreheads very flat, and very much depressed. They are not born so, but they force the head to assume that form, by applying to the head of the newly born child a small plate, which they tie firmly behind. This remains until the bones have acquired their consistence, so that the forehead is flattened to that degree, that they can see almost perpendicularly without elevating the head."—The travellers, Messrs. Lewis and Clarke, confirm these reports. They relate, that some of the Indian tribes flatten the forehead by compressing it in a

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* *Benevolence.* "For a long time Gall did not think of placing goodness of heart in the brain. A family of Vienna often praised the goodness of one of their servants. This family told Gall that he ought to mould this servant in plaster. At last he actually did so, and observed a remarkable protuberance on the superior middle part of his forehead. This organ was afterwards confirmed by numerous observations; for it is very easy to examine and verify this organ in children, and in adult persons.

"*Individuality* is situated in the midst of the lower part of the forehead; and *Comparison* in the midst of the upper part of the forehead.

"*Tune.* This organ enlarges the lateral parts of the forehead; and the organ of *Time* is situated between those of individuality, space, order, tune, and cause."—*Physiognomical System.*

machine immediately on the birth of the child. By this means, when the bandage is removed, the upper part of the forehead is not more than two inches broad, and yet the intellectual faculties are uninjured. These people are acute, inquisitive, loquacious, and have retentive memories.

From whatever cause this practice of altering the natural shape of the head may have arisen, it is certain that the custom prevails, and it has been confirmed by the repeated observations of the most enlightened travellers. Those, however, who are so sceptical as to disbelieve such reports, will not be disposed to deny that the bones of the cranium can be, and are modified by pressure during infancy, and by accidents during adult age. If, therefore, we remember that our new science is founded on the physiognomical and anatomical examination of the brain, such causes would appear to prove fatal to the system.

3. The anatomical examination of the human cranium discloses many elevations and protuberances which are *not* caused by the prominency of the brain, but owe their existence to other causes Thus, at the lower part of the frontal bone, we find demonstrated the organs of size, colour *, and space. Now it is to be remarked, that the prominences placed in this part of the skull are formed by the frontal sinuses, or a division of the bony plates, and are totally independent of the impressions of the brain. Besides these elevations, anatomists have usually observed other eminences on the bones of the head, which have commonly been regarded as a centre of ossification. One of them may be demonstrated on each parietal bone, at which place the author of the science has placed the organs of veneration† and hope, and one on the occipital bone, which has assigned to it the organ of amativeness, or physical love. But further, in those skulls which possess an unusual quantity of diploe or

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* *Colour.* Its organ is placed in the midst of the arch of the eye-brows. The external sign of a greater developement of this faculty is a vaulted and round arch of the eye-brows. This configuration gives to the face a look of joviality. In the Chinese the orbituary arch is elevated in the midst, the eyes are depressed, and it is known that they are fond of colours. This faculty is generally more active in women than in men. Women are more fond of colours than men, and they show this taste even in their dresses. Some women acquire a certain perfection in colouring, while in all other parts of the arts they are exceeded by men. Their eye-brows are accordingly more rounded than those of men. *Space* is to be distinguished at the eye-brows, towards the middle line of the forehead, and is nearly joined by the organ of size. — *Physiog. System.*

† *Veneration.* Dr. Gall, in examining the actions of man, visited churches in order to see the configuration of the heads of those who

vascularity between the bony plates, elevations or risings can have no connexion with the impressions of the brain. It is only the inner plate which can thus be influenced; this being formed and moulded by the brain itself, of course exactly corresponds to its figure. These facts may be demonstrated in the crania of anatomical museums. In one* skull there were two very deep hollows on each side of the spine of the os frontis, which, on the outer surface, is flat, smooth, and regular, the hollow being formed by the bone being so much compressed as to be nearly diaphanous at those parts. And there is also a very considerable depression at the back part of the right parietal bone, for which there is no external corresponding protuberance. In another skull, the tables of which are separated by a large diploe, the inner one being strongly furrowed by the vessels, the posterior part within is remarkably regular, yet on the external surface there are two very prominent protuberances on the outer table.

Good anatomists, among whom are to be reckoned Monro the elder, and Blumenbach, are of opinion, that the action of the muscles may have a considerable effect in modifying the shape of the head. We are certain that the action of the muscles in scrofulous subjects has the effect of wonderfully distorting the limbs; and why should not the same derangement, under similar circumstances, occur in the head, and in the imperfectly ossified crania of infants? The elder Monro attributes much to this action of the muscles: he is of opinion that the sides of the cranium are depressed by the strong action of the temporal muscles, whose contraction hinders the uniform protrusion of the bones, which is more equally performed where there are no such strong muscles. In some of the carnivorous animals, as the lion and tiger, the size and strength of the temporal muscles are prodigious, and by their action have evidently the effect of contracting the diameter of the cranium. In children, whose muscles have not acted much, and, consequently, have not had great effect on the bones, this depression is not so evident, therefore their heads are much rounder than in adults. Such natural causes produce a great variety in the skulls of children, which is still further increased by the different management of the heads of children. The action of powerful muscles having the effect of producing inequalities on the surface of the bones receives a farther confirmation from the fact, that the upper part of

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excel in devotion. He observed that the heads of these pious men were very elevated. Lavater had made the same observation. The organ of hope is seated beside that of veneration.

* London Medical Repository, vol. iv. page 219.

the cranium remains level, being only covered by a smooth tendinous expansion.

Thus, if experienced anatomists have already assigned a use to these several elevations and inequalities, it does not seem philosophical to apply to them a double function in the animal economy.

I shall not, at present, occupy the useful pages of the REPOSITORY by stating any farther observations on Cranioscopy, but must conclude with expressing a conviction, that it is far from being established on philosophical principles.—See Anatomie et Physiologie du Systeme Nerveux en general, et du Cerveau en particulier; avec des Observations sur la Possibilité de reconnoitre plusieurs Dispositions, Intellectuelles et Morales, de l'Homme et des Animaux, par la Configuration de leurs Têtes. 4to. avec 17 planches. Lettre de Mons. Villers à M. Cuvier, sur une nouvelle Theorie du Cerveau. Mentz, 1802. Edinburgh Review, vol. ii. Representation of Gall's Theory of the Brain and Cranium, by C. H. Bischoff, Professor of Anatomy at Berlin, with Remarks by Hufeland. Dr. Gall's new Theory of Physiognomy, founded on the Anatomy and Physiology of the Brain and Form of the Skull. London, 8vo. 1807. A Review of this in Edinburgh Med. and Surg. Journal, vol. ii. An anonymous Work, entitled Dr. F. J. Gall's System of the Functions of the Brain, extracted from C. A. Blode's Account of Dr. Gall's Lectures held at Dresden, translated from the German, to serve as an explanatory Attendant to Dr. Gall's Figured Plaster Skulls. Rees's Cyclopædia, article Craniology. Dr. Spurzheim's Physiognomical System, founded on an Anatomical and Physiological Examination of the Brain and Nervous System, large 8vo. 1815. Report, by M. M. Tenon, Portal, Sabatier, Pinel, and Cuvier, on Gall's Anatomy of the Brain. Edinburgh Review, vol. xxv. Edinburgh Encyclopædia, article Cranioscopy. Observations on the Structure of the Brain, by J. Gordon, M. D. &c. 8vo. Edinburgh, 1817. Dr. Spurzheim's Examination of the Objections made in Britain against the Doctrine of Gall and Spurzheim. Forster's Essay on Craniology. London, 8vo.

Brentford.

II.

Observations on some Apparent Failures of Vaccination, and their Causes; with Strictures as to the Management necessary to their future Prevention. By J. FOSBROOKE, a Member of the Profession.

(*Concluded from page 97.*)

THERE are certain idiosyncrasies which render the subject

impervious either to the vaccine or the variola, and sometimes to one and not to the other. Dr. Tierney says, "certain habits of the body resist the action of the vaccine virus: indeed, I have found some men, who resisted the contagion of the variola, and were affected regularly by the insertion of the vaccine. I have also seen a man who could never in any way be affected with either. *He at this time labours under chronic disease of the liver.*"

"To expect from vaccination," says the writer of the Third Report of the Nottingham Vaccine Institution, "complete security in every instance, is out of reason; whatever the over-zealous supporters of the practice may have asserted. It is generally admitted, that some individuals have totally resisted the small-pox by inoculation; others have had the disease twice in the natural way; and many instances of this kind, the veracity of which has not been disputed, are upon record." It is fact, that a list of 3000 well authenticated cases of small-pox after small-pox, have been collected in a short space of time; and one in which the fœtus in utero of a long before inoculated mother, was born with small-pox pustules, the contagion to which she incidentally fell in the way of, having been most singularly conveyed to the fœtus. It would be well to inquire into all cases of idiosyncrasy, into every particular of the individual's case, to discover the latent cause, if possible.

In an instance in which Dr. Jenner was requested by the commanding officer to vaccinate a body of soldiers, who were infected with the itch, after this had been cured by the usual sulphur applications, they were vaccinated, but without any effect. This was no doubt attributable to the sulphureous impregnation of the skin: they were ordered into the warm-bath, and revaccination succeeded.

One of the most important cautions, however, and but briefly noticed in the instructions, is to observe the most scrupulous nicety in the vaccination of children under any eruptive disease; from disregard or ignorance of which, I repeat, innumerable failures have and will occur.

Mr. W. Washbourn, surgeon, of Marlborough, Wilts, first communicated a case to Bradley's Journal (vol. ix. p. 370,) of vaccination suspended by previous action of varicella; but the disease put on and went through its regular appearances after the varicella had subsided. This is confirmatory of the axiom, that when two constitutional diseased actions exist in the system at the same time, one remains stationary, *or merely topical*, till the other has subsided. We thus may explain the eternal cases of mixed diseases, which we are every day told of as matter of fact. Of late varicella, after cow pock, has

been generally recognised as variola; for small-pox, since its decline, is by no means familiar to every practitioner.

Dr. Jenner, in 1804, published a tract, which seems to have had, I regret to say, a very partial circulation, in which he alleged some striking facts to illustrate the interference of cutaneous diseases: I believe he has it in intention to publish a second edition. I am sorry that I have no copy in my possession to quote verbatim; but from having attentively perused it, and having had a subsequent conversation with the Doctor on the subject, I can state, that he spoke emphatically of regarding, with suspicious care, the slightest eruption. He related cases, in which a mere abrasion on the surface, when on the face, small herpetic patches behind the ears of children, and papillary eruptions in other places, would restrain the action of the vaccine matter. "Of one degeneracy," says Dr. Jenner (in a letter to Dr. Marcet, Bradley's Journal, vol. ix. 463,) "we have an instance not uncommon in the purulent pustule. I frequently find when a child has a scabby face, especially if it be accompanied with tinea capitis, or papillous eruptions, that the purest vaccine virus will produce a pustule that will never contain limpid matter, but throughout all its stages its contents will be purulent. If I inoculate from this, I am sure almost to a certainty to produce a similar pustule." Dr. Tierney is doubtful whether we ought to perform vaccination when old ulcers, difficult of cure, are present. In infants cuticular eruptions of the scalp frequently occur; then he prohibits vaccination: and in cases of wounds it should be deferred, he very properly says, till the cure of the primary affection. Dr. Jenner's practice, as I shall state when considering the mode of vaccination, does not altogether coincide with Dr. T's. An able review of the vaccine pamphlets, (see Ed. Rev. vol. ix. p. 57,) in speaking of some cases, remarks, "that it sometimes happened, that owing to the existence of eruptive fever, or violent cutaneous disorders, the patients did not receive the full constitutional affection, nor indicate the decided symptoms of regular vaccination." The *rationale*, perhaps, may be this (I offer it diffidently), that when any order of parts, *e. g.* the skin, is under the action of any morbid poison, it is from the consent which obtains between all its extent and continuity, liable to resist or modify in a specific manner, every other which may be offered to it, while the former is present.

Dr. Bateman says, "the most frequent cause of these imperfections (the deterioration of lymph,) seems to be the presence of chronic cutaneous eruptions, or the concurrence of eruptive fevers, or even of other febrile diseases. The chronic

cutaneous diseases, which sometimes impede the formation of the genuine vaccine vesicle, have been described by Dr. Jenner under the ordinary indefinite term herpes, and tinea capitis. In the more accurate phraseology of Dr. Willan, they are herpes, (including the *shingles* and vesicular ringworm,) psoriasis and impetigo, (the dry and humid tetter,) the lichen, and most frequently the several varieties of porrigo, comprising the contagious eruptions*. Dr. Willan thinks that itch likewise has the same influence. Of the interference of the eruptive fevers, measles, scarlet fever, and chicken-pox, with the progress of the vaccine vesicle, when they occur soon after vaccination, numerous instances have been recorded. The *suspicion* of its progress, indeed, might be conceived, under such circumstances, from the known facts respecting the reciprocal action of these contagious fevers on each other. But the action of the vaccine virus is *not only suspended* by these fevers, so that the vesicle is very close in its progress, and the areola not formed till after the fourteenth day or later, and sometimes not at all; but it is occasionally rendered altogether inefficient. Even typhus fever, and the influenza, have been observed to produce a similar interruption in the progress of vaccination.

Some relations are to be noticed, which appear contradictory or inconsistent with these statements: in these, eruptive epidemics, and cutaneous diseases, have disappeared in consequence of vaccination; and the vaccine has been supposed to have proceeded regularly. In some extracts from a Letter published by Dr. Cogan, from several members of the profession at Rotterdam, to the agent of the National Institution, we find it stated, that in vaccinating some that had cutaneous diseases, such as the ringworm, &c., the eruptions either totally disappeared, or were much diminished. In these subjects, the *crusts generally fell off the earliest, and left an obstinate but harmless ulcer.*

Seven days after the inoculation, one of the patients caught the measles, which were at that time prevalent. The pock already formed was checked in its progress for the space of fourteen days, excepting that it became somewhat enlarged,

* Dr. Bateman's animadversions have the air rather of a fastidious and overrating nicety in small distinctions of nomenclature. Dr. B. repeats the "ordinary indefinite term herpes" after Dr. Jenner, who doubtless intended its generic application, as well as Dr. B. Porrigo is a synonyme of tinea, and of origin so recent as hardly to have superseded the latter, which subsists in the classifications of Sauvages and Cullen, and is yet most popular. With respect to the others, they are distinct additions, and not comprehended by Dr. J.

until the measles were terminated, which was on the twenty-first day after inoculation. The cowpock now began to acquire activity, formed the areola, and became dry on the 24th. The measles were of a very unfavourable kind; and it appeared highly probable that the patient would have fallen a victim to its malignancy without the aid of the cowpock; which, though apparently stationary, acted as a stimulant to the system. In the first cases there need be but little hesitation in deciding that the cowpock was modified by the pre-existing eruptions; and we should be very much inclined to deem it insecure. In many instances it may be probable that the irritation of a stronger disease, opposed to one rather in general occupation of the system than the skin, may operate to advantage; but not without some diminution of its active qualities, when uninterrupted. In the case of measles, we see the confirmation of a principle I laid down; but in this the *denoûement* of the vaccine was premature, having arrived at the state of scab in ten days, instead of the usual period of twelve. Mr. Hutchinson, of the Manchester Infirmary, says, "When children at the time of inoculation have any cutaneous eruption, I have always observed it increase considerably about the sixth, seventh, or eighth day: after this period it is either greatly diminished, or entirely disappears: I have not, however, succeeded, *from my inability to infect the patients*, who were all of them suspected to have had the small-pox. Another instance, similar to the above, is seen where the infection has taken place more quickly in one arm than in the other; we here find the pustule, about the seventh day, in one arm, making its usual progress; while, on the other, slight marks of inflammation are only beginning to appear: on the twelfth or thirteenth day, however, each has a pustule nearly similar: the action of the second pustule is an evidence of regular vaccination.

Dr. De Carro, in a Letter to Dr. Jenner, gives two such cases.—"I saw a child attacked with what the French called *dartres*, and what you call, I believe, tetters. The eruptions were sore and much irritated when I vaccinated: the pustules on the arm went on their regular course, but the sore spots of the elbow, shoulders, and back, were soon covered with large characteristic vaccine pustules: the fever was high, and ceased as soon as the black crusts began to form. The crusts having separated, we had the pleasure to see the child's skin perfectly clean, free from the preceding eruption, and it has not appeared since. On last new-year's day I vaccinated the child of a physician, which had for several months a very abundant eruption of crusta lactea all over his face. As I had vaccinated several subjects under that eruption before, I did not hesitate

to do the same. The vaccine pustule appeared regularly; but on the twelfth day a most copious eruption of true vaccine pustules took place on the whole face, on a part of the back, where a blister had been kept open on account of the milk crust, and on the scrotum, which happened to be slightly excoriated by the urine: the other parts of the body, where the skin was sound, remained free from the pustules. The eyes, in this case, were affected by swellings of the head and face. "I am very impatient to know," he concludes, "whether the child will lose its former eruption on the falling off of the vaccine black crust." This first case certainly argues strongly that cutaneous affections may be sometimes superseded by the counter-irritation of another disease of the skin.

I understand from Jenner, says Dr. Tierney, that in an infant which he vaccinated, during the time in which the system was pregnant with the vaccine disease, that the fluid from an issue on the other arm was changed in its qualities. He afterwards vaccinated another infant, in the same family, in whose arm there was an issue, with a like result. No one will deny that the change of secretion in both of these examples is to be referred to the action of the vaccine virus. Hence we ought to act cautiously in the insertion of matter; and since that vaccine pustules cause these (alluding to spontaneous eruptions after vaccination,) I think that if it can be so determined, that all who labour under cuticular eruptions, or whose cuticle may by any chance be abraded, should not then undergo vaccination; and least of all where there are wounds. The change which may be produced in the system by the insertion of virus, may be of some advantage in ulcers.

Dr. Jenner, in his further observations, (p. 137,) gives a case of a boy that underwent simultaneously measles and inoculated cowpock: the pustule reached its twelfth day without any efflorescence, but before it scabbed it advanced in the usual manner. This is pretty apparently a case of irregular vaccination. Many maintain that rubeola will suspend the variola, and not the vaccine. One of the preceding cases, however, directly points out the fallacy of such positions; and proves that the future safety is not certain after these concurrences.

To sum up, on this point: it is the practice of Dr. Jenner, in cases at least of the slighter varieties of eruption, never to delay vaccination; but at the same time adhering cautiously to those rules, attention to which will render vaccination, unless where impossibility to communicate exists, infallible.

On the Mode of Vaccination.—Slight vaccination, for many reasons, may be no security against the small-pox. One puncture made and inflamed, the disease may be interrupted

by the child rubbing off the scab, to mitigate the irritation of itching. If from this cause it is not rendered unavailing, or negative, another kind of interference, the substraction of lymph from a single vesicle, is sufficient to do it. It is not very long since Dr. Jenner declared, " that a single cow-pox pustule is all that is necessary to render the variolous virus ineffectual." Dr. J.'s opinion is in a great measure changed, and, consequently, his mode of vaccination.

It is proper to vaccinate, in every instance in which it is possible, with the globule of lymph from the *genuine* vesicle. At the age before mentioned, and under circumstances of freedom from every objection which has been stated, both in relation to the subject and the disease, one puncture is sufficient in the right arm; in the left two should be made, longitudinally parallel, half an inch apart. In the instructions lately published, *four* punctures in every case are recommended, " two in each arm."

Every practitioner who has seen much of vaccination, very well knows that when fluid lymph is inserted, the probability is five to one that it succeeds; and it is obvious, that with three punctures it is much more certain. Again, you may take your lymph from one pustule, without interrupting the progress of the others: it generally happens that one only or two rise; in the first event, no lymph should be taken. Children sent away, who never return, (the giant obstacle to the perfect consummation of the process,) are more likely to have done well from this triple operation, than the single.

But, however, we are not to rest satisfied with the mere manipulation of vaccination; the duty we have to discharge is more severe and extended, yet simplified enough to give the meanest capacity the power of succeeding as completely, as those who can form an equal confidence from intimacy with the most impalpable *minutiæ*. Dr. Bateman remarks, there is *no uniform appearance which is characteristic of imperfect vaccination*. Other practitioners have mentioned that there are imitative and defective diseases, of which there are no very visible criteria, and these often produced from lymph of the *purest* nature. A writer in the Ed. Med. Journal, vol. i. p. 125, justly says, " but even the uncertainty of the characteristic marks which determine its preventive efficacy is so great, that the most experienced are unable to decide." In Count Mottle's arm, the disease exhibited such specious appearances, that many were vaccinated from it, but it was proved to possess no antivariolous powers. In one case, which occurred within my own knowledge, an infant subject was vaccinated by the mother's desire, under *crusta lactea*, or mild *tinea capitis*, (for it had extended to the head,)

and the vaccination exhibited all the regular appearances. How easily might this have been considered a safe case in its present state! for if the crusta had precluded any constitutional action of the vaccine, the pustule was no index of it: and yet Dr. Bateman says, " a disease possessing these characters, and passing through these regular gradations, effectually and permanently secures the individnal from the danger, &c. of small-pox." But really it is shocking enough to be liable to a small-pox, and its concomitants, even that does not *endanger* life. Dr. Willan has given us the description of some discriminative features of the irregular disease; but every body has not that discerning eye which he has, to detect what are almost imperceptible differences.

Mr. Bryce divides the vesicles into " constitutional and local; but at the same time admits, that he knows no criterion by which they are to be distinguished, save the ultimate security against small-pox produced by the one, and not by the other." Thank God, that such acquirement, if not impossible, is unnecessary; there is a mode without exception, which renders this of secondary importance, viz. the use of tests.

Dr. Tierney says, I vaccinated an infant three years of age. On the ninth day of the disease a finger was accidentally cut. On the tenth day I saw her; and on the part where the injury was inflicted, a pustule appeared, equally as mature as that which existed on the arm. That this was caused by the system being universally affected by the action of the vaccine virus, is evident: since it is well known to all, that before those parts of the body adhere, of which the solution of continuity has been made, inflammation is necessary: in this case, the body being as it were saturated with the vaccine infection, a vaccine pustule arose in the place of the inflammation. Thus we may account for the pustules sometimes existing in different parts of the body, and arising where abrasions of the skin, or cutaneous eruptions, are situate: for if they arose from the application of vaccine virus, as some imagine, and were not the effects of a general state of the system; the virus so applied would require the same space of time for maturation, as the original pustule. This, however, was not the fact in the instance cited; for on the day after the sore was inflicted, a pustule arose, which was altogether similar to that which the virus generated, applied ten days before that period. Unless I am mistaken, a similar phenomenon to this often occurs in the inoculation of small-pox, as I have frequently observed. Four or five days having elapsed from the insertion of the matter, another wound is sometimes inflicted, a puncture is made, lest the first should

prove ineffectual. If both of these pustules take on the variolous inflammation, the one will appear on the eighth day from the first insertion: the inflammation which attends the second, proceeds with no less celerity, nor does it disturb the equable tenor of the disease in any manner, but accurately observes the changes of the first. It must follow, that an event of this kind ensues from the system abounding with the variolous diathesis; for in the second puncture a pustule is formed, which otherwise would have required four days longer to have brought it to the same maturity."

Mr. Bryce, from a similar series of observations and combination of ideas, with much felicity of mind, rendered this fact subservient to the purpose of ascertaining constitutional affection. "He found that in cow-pox, in which the characteristic areola takes place about the eighth day, if a second inoculation be performed on the fifth or sixth day, it will be so much accelerated in its progress, as to have an areola formed within a few hours after the first, increasing with its increase, and fading as it fades. If the second inoculation be delayed beyond the sixth day, the affection produced by it will be very indistinct, and of short duration; and if performed at an earlier period than the fifth day, the contrast between the progress of the two affections with regard to duration, will not be so great as may be thought necessary. So that in order to obtain the proposed criterion in the greatest perfection, the second inoculation should be performed between thirty-six and forty-eight hours before the areola of the first inoculation is expected to appear." Mr. Bryce (vol. vi. Ed. Med. Journ.) attributes the acceleration of the second inoculation to the effect of the constitutional affection produced by the first; and, therefore, if it shall be found that no such acceleration takes place, but that the second inoculation proceeds by a slow progress through all its stages, it is to be considered that no constitutional action has taken place from the first insertion of the virus; and when this is the case, the second inoculation must be regarded as a primary affection, and a third puncture made, according to a plan laid down for conducting the second inoculation; and thus we may go on till the proper test be obtained, or until we be satisfied that the constitution completely resists the action of the cow-pock." It may be observed, that the secondary pustule is always in *miniature*. As this is sufficiently explicit, it would be superfluous to enlarge upon it. But, however, taking into consideration the necessity of practising the test at a precise period, we must be struck with the difficulty of being always prepared on our own parts, with intentions perpetually intersected and broken off by contingencies; and, more than all, from the

difficulty of convening the patients; a negligence and indifference by which our efforts are constantly paralyzed. To remedy this, we must recollect that it was some time maintained, that cow-pock remained "unchanged, with regard to its own action," and that, therefore, it could be reiterated by successive vaccinations indefinitely. This, however, has received decided confutation, and from it we have a resource remaining, of the most satisfactory nature, in all cases in which we are disappointed in effecting Mr. Bryce's test at a proper period. It may be denominated the test of reproduction, *i. e.* simply vaccinating the child who has gone through the disease, after its convalescence, a second time above the two first insertions in the left arm: if the disease is reproduced, we may try Mr. B.'s test, or continue to vaccinate till we cannot succeed.

In some cases in which I have been required to act, where the patients were regularly brought to me, Bryce's test was tried successfully, and the test of reproduction in all without success. "Thus was assurance made doubly sure." Mr. Bryce's discovery has been the means of dissipating all hazard or uncertainty.

One or two desultory facts may not be out of place here. In the third Report of the Nottingham Vaccine Institution, there is one failure out of 3000 and more vaccinations. This appears to be owing to neglect of the test, for there was nothing to confirm the constitutional effect of the disease but the regularity of its appearances. Mr. Burns, teacher of Midwifery in Glasgow, (vol. iii. Ed. Med. Journ.) adduces a case of cow-pock, seemingly regular, in which cow-pock of anomalous nature ensued, and from which he infers the "necessity of the test of reinoculation, which alone can certainly maintain the security of every individual, and procure the public the full benefit which may be derived from cow-pock." The respectable judgment of the late Editors of the London Medical Repository, (vide Analytical Review of Hall on Diagnosis,) is urged in favour of this practice: they conceive that many failures which militate against vaccination, were "attributable to the imperfect mode in which it was done." The last instructions of the Nat. Vac. Establish. speak of having recourse to testing after deviations, &c. Why limit it to any thing? I can never allow it to be an act of supererogation.

The superaddition of variolation has been becoming general, where it has been endemical, and I am sorry to say, without revaccination. Taking it for granted, that the first was all right, a second was not resorted to, and, in consequence, patients had mild small-pox. I do not know what objections can be urged to variolous inoculation, after regular vaccina-

tion, if every part of a family be secured, if the individuals be kept under quarantine, and not permitted to be the erratic vehicles of disease and contagion to the heedless and improvident. But vaccination ought and will be vicarious to small-pox. In a Report made by the Broad Street Vaccine Institution, reinoculation, with vaccine matter, proves to be a preferable test, for it does not appear that a person who has gone through the cow-pock is susceptible of it a second time. It is necessary sometimes to temporize with parents; and a case in which the efficacy of vaccination is exemplified by the failure of inoculated small-pox, does more to convince the parental mind, than any other test whatever: and another argument in favour of vaccination before variolation, may be urged to such as will insist upon variolation, "that small-pox, after vaccination, is on all hands allowed to be a milder affection than the slightest cases of inoculated small-pox." In the Report of the Royal Jennerian Society, 1806, signed by fifty of the first Physicians, they state, that "small-pox, after imperfect vaccination, was without its malignant characteristics."

In drawing towards the conclusion of a subject which I have taken up *con amore*, I may remark; it is evident enough, that the practice of vaccination has been held too light, that the number of failures has arisen from neglect of conducting vaccination according to the system which I have attempted to illustrate. In the very last Report of the Nat. Vac. Estab. after a frank acknowledgment of failures, we find it stated "that almost all the subjects of these cases have been vaccinated by methods less effectual than those which have been adopted and inculcated by this Establishment." In consequence, small-pox has been kept up in a manner apparently justifiable. Indeed, as Mr. Rugby observes, "it is pretty evident, while any pecuniary gain attaches to it, individuals will be found to practise; and while any prejudice remains against vaccination, which it is their obvious interest to keep up and increase, there will be no difficulty in finding subjects to practise upon. The greater number of those who are agents in this mischievous practice, are, I aver, incapable of reasoning on the subject, and probably still less capable of any moral discussion: but those few of the Profession who continue it, assume, as a justification, the alleged insecurity of vaccination; and to establish such an opinion, are loud in abuse of it, industrious in collecting cases of doubt or error in vaccination, some of which must necessarily occur in great numbers, in magnifying supposed failures, and *laying them most conspicuously before the public in newspapers, (now very much the case).*" The present Report addresses the Legislature on this

evil. The beings who pursue this ignominious office, excite at once our resentment and commiseration.

To preserve the reputation of our Hygeia, it must be differently conducted: it has been too much in the department of persons but little versed in it. One need not, indeed, be much surprised at many of these partial failures, when it is estimated what a considerable proportion of individuals, exposed to contagion, have derived their protection from the benevolent predilection which *ermined* ladies, and philanthropic idlers, have conceived for their amusement. They all meant well: those who do most mischief generally do. But it is time that this interposition of officious zeal should be greatly diminished, which, of late, it seems to have been, and that the vaccine lancet should be employed by more discriminate faculties, and more disciplined hands. These reprehensive facts are not represented with any sinister view; for it cannot be denied that much good has been done by many ex-professional characters, perhaps the most extensive exertions have been made by these, who will receive instructions with benefit to their own understandings and the public. A careful examination of persons already vaccinated, and testing generally, would be advisable. In the register of names, the following particulars seem to require chief attention. How often each individual was vaccinated, and what was the progress of the vaccination. The result of the test, and whether the individual has been dismissed satisfactorily. Those in whom vaccination was repelled, and consequently blank. Some distinguishing memoranda of those who did not return after vaccination. This last particular, as I have before observed, is an evil of supreme magnitude. "Many, by not returning at the appointed time, are erroneously supposed to be secured against the small-pox, who, in reality, never had the cow-pock." In Edinburgh and Dublin they checked this indifference by exacting deposits: in Norwich effectually, and perhaps admirably, by giving rewards to each individual of half a crown, who acted as they ought to have done. When these considerations rush into my mind, with the prospect of consummate utility which vaccination, more generally diffused, holds out, I am tempted yet to linger on my subject: but my present view must terminate with the hope that the most essential facts are compressed into succinct arrangement, and that I have been engaged in a labour not altogether in vain*. It is not to be ex-

* I wish, indeed, that the subject had fallen to ability less slender than mine, and to opportunity less sterile in experience. I will presume to hope, that the vaccine epitomized, will in future form a prominent subject in the prelections of our professorial teachers.

pected that such representations will arrest the attention of all. There are enough of systematists and prejudiced persons in our profession, and anti-philosophers in no profession at all, who never either vary their opinion, or are actuated by truth. But to the enlightened among veterans, and to the younger who are devoted to science with ardour, and with that persevering and patient merit, so requisite in medicine, in order to raise its professors against the competition of power, and the slow estimation of the world; the adoption of every thing for the visible good of others, is a matter of choice, as well as of necessity.

It may not be impertinent in conclusion to remark, that about the same period came upon the theatre of life two men, whose talents were destined to perform very important parts, but parts diametrically opposite; the one in the devastation and ravage of the civilized world, and the other in the discovery of the means, which tended to supply the chasm of human life created by the former; to fill up the deficiency caused by the destruction of thousands, by preserving the lives of more. However successfully the career of the highly talented conqueror had been extended, he could not have destroyed more than Jenner has already saved: the one could only have depopulated Europe; the other has multiplied and saved population not only in Europe, but in all quarters of the globe, from a deadly disease. Buonaparte was an instrument of extensive, but temporary and limited evil; Jenner has been the author of permanent and unbounded good.

III.

Cases of Fistula Lachrymalis, treated according to Mr. Ware's Plan, by R. Smith, M.D. Member of the London College of Physicians, and Physician at Maidstone*.

Mr. Ford, a farmer, about fifty-two years of age, applied to me some time since, in consequence of a constant watering of the right eye and dimness of sight, attended with inflam-

* The accompanying Cases have been transmitted by an esteemed friend, who was formerly in the practice of surgery. "There is nothing (says Dr. Smith in a Letter to the Editor,) new or particular in them; but they may, nevertheless, tend to strengthen the recommendation of an operation proposed by my late excellent friend, Mr. Ware; the advantages of which, I fear, are not sufficiently appreciated."

mation of the tunica conjunctiva, and considerable pain in one side of the face and head. The eyelids were swelled, and their edges excoriated. The lachrymal sac was thickened and distended with pus, which on pressure escaped partly through the puncta lachrymalia, and partly through an external opening, formed by ulceration in the sac about six months since. The disease had existed upwards of two years.

As there appeared no chance of relief, except by an operation, I proposed that recommended by Mr. Ware in his work on Diseases of the Eye, which consists in passing a style through the lachrymal duct, or the os unguis, into the nose. I had performed it with complete success in a case very similar, which rendered me more sanguine in my hopes of effecting a cure in this instance. The case I allude to was communicated to Mr. Ware, and published in the first volume of his work, page 459.

Mr. Ford having consented to the operation, I performed it in the following manner, on the 3d of November.—The opening in the sac not being conveniently situated, I made another with a spear pointed lancet, more immediately over the orifice of the duct, and introduced a probe into the sac, which I attempted to pass through the natural passage into the nose; but finding considerable resistance, I withdrew it, and made use of the contrary extremity, which had been purposely rounded and made sharp: with this I perforated the unguis, which was evident from a peculiar grating sensation. On withdrawing the probe, I inquired of the patient if he was sensible of any moisture in the mouth or nose? he said he was not, neither was there any appearance of blood.

Being desirous of ascertaining how far the operation had succeeded, I injected some warm water through the orifice in the sac, which readily passed into the nose. I was now satisfied, and introduced a nail-headed style about an inch and a quarter long. The eye was covered by a compress, which I desired might be kept moist with a saturnine lotion. The patient complained only of slight pain during the operation; and walked home, about six miles, immediately afterwards.

4th. The conjunctiva was rather more inflamed; the watering of the eye, and pain in the head and face, were less, and he had felt a slight moisture in the right nostril. I removed the style, and injected warm water through the opening, which readily passed into the mouth and nose. I replaced the style without difficulty, and applied unguentum hydrargyri nitratis to the excoriated lids. The eye was then covered, as before, with a compress, moistened with saturnine lotion.

6th. The eye had watered very little; the inflammation of

the conjunctiva had nearly subsided; the excoriation of the lids was much relieved, and the sight improved. I removed the style, and injected warm water.

9th. The appearances continued improving, and he had suffered very little from the pain in the face and head. I removed the style, and injected warm water as before.

12th. The inflammation of the conjunctiva was entirely gone; the eyelids had recovered their healthy appearance; the eye had ceased to water, and he could see as well with that eye as before the commencement of the disease. The pain in the face and head had left him; there was still a little discharge from the original wound in the sac, which, however, was lessening daily. The style was removed as before.

15th. The patient appeared perfectly well; the original opening had healed; and the eye in every respect had recovered its natural appearance. He was directed to remove the style twice a week, and after having cleaned it, to replace it, which he could now accomplish with ease. In about three months, finding himself perfectly well, he left out the style, contrary to my advice, but has experienced no return of the complaint.

Several cases of fistula lachrymalis occurred to me while I was practising as a Surgeon in Sloane Street, and Surgeon to the Chelsea and Brompton Dispensary; but I shall only name one, to show that the operation is not invariably successful: (Mr. Ware, with his usual candour, acknowledges this:) and it is, perhaps, of more real benefit, particularly to the junior members of the Profession, to relate those cases which do not entirely succeed to our wishes, than those which do; though certainly less gratifying to our feelings. The subject of the case was a female; the appearances and symptoms were very similar, and the operation was performed in the same way as in the case already related, by perforating the os unguis. She experienced considerable relief for two or three weeks; the eye watered much less; the pain in the face and head was relieved, and her sight improved; but she did not obtain a perfect cure, for the opening formed through the unguis became partly obstructed about a month after the operation, and the watering of the eye was at times rather troublesome; notwithstanding there was, to use her own expression, "plenty of moisture in her nostril." On the whole, however, the operation had afforded her considerable relief, and she expressed herself satisfied with the improvement in her sight, and freedom from pain.

I may take this opportunity of observing, that I have frequently seen the application of a leech over the lachrymal sac, as proposed by Mr. Ware, in incipient cases of fistula lachrymalis, or epiphora, effect a perfect cure without any other

application, or merely a lotion of sulphate of zinc and rose water. A case of this description came under my care not long since: the patient, a man forty-seven years of age, had been suffering from weakness and a frequent watering of the left eye, for nearly three years, during which time the disease had gradually increased, and when he applied to me the lachrymal sac was much distended; and on pressing it, tears, mixed with mucus, passed through the puncta lachrymalia; they could also be pressed through the duct into the nose; the watering of the eye was almost constant; the sight was somewhat affected; and the patient suffered trifling pain at the upper part of the orbit. I directed a leech to be applied over the sac, which afforded considerable relief: he has since used a lotion composed of a grain of sulphate of zinc to an ounce of rose water. The eye now scarcely waters, and the sight is improved; and he says, when he uses the lotion, it passes readily into the left nostril, though before he applied to me he could not perceive any moisture, unless he pressed the contents of the sac through the duct.

IV.

Question on the Communication of the Venereal Disease. By W. B. Diamond, Member of the Royal College of Surgeons in London.

I have this morning been looking over the Second Part of the seventh vol. of the "Medico-Chirurgical Transactions of London;" and was much pleased by a most useful and interesting paper, by William Hey, Esq. Surgeon, at Leeds, on the subject of "Effects of the Venereal Disease on the Fœtus in Utero," page 541. Mr. Hey remarks: "It may justly excite surprise, that the gentleman whose case I have just related, should have remained free from disease when his wife was in the condition which I have described. I confess myself unable to account for this circumstance, without calling in the aid of a supposition which wants probability. I have related all I know of the case, and must leave the solution of the difficulty to your better judgment." (John Pearson, Esq.) I ought to observe here, for the information of those who have not seen the case published by Mr. Hey, that the infection was communicated by the gentleman to his wife, although he had no symptoms of the disease on him at the time of his marriage. I believe I have myself seen cases of the same nature; but the medical care of them have not come under my own immediate attention. I am anxious to propose as a question,

which I think of some importance to medical science,—"*In what manner is the venereal disease communicated to a female by the male, when he shall at the time have no symptoms of the complaint on him?*" That such cases do occur, is beyond the possibility of a doubt; and it would afford me much satisfaction to see the subject discussed in the MEDICAL REPOSITORY.

Bushlake, Warbleton, Sussex.

V.

On Extraneous Substances in the Ears. By W. WRIGHT, Surgeon-Aurist, Bath.

SEVERAL children having suffered very seriously, and even been deprived of life, from having forced extraneous substances into the ears, I beg to offer, through the medium of the REPOSITORY, a case to the notice of my medical brethren. Master Bird, a fine boy, about nine years old, of Pulteney Street, in this city, nearly four years ago forced a hard pea into his ear, which baffled all attempts on the part of the Surgeons then consulted to extract: but those attempts produced erosion, a considerable discharge of a fœtid nature, and a polypous excrescence so large, as completely to obstruct all sight into the meatus: in which state he was brought to me on Thursday, 23d of April: I washed away the discharge with a sol. liq. plumbi acet. Ordered him calomel gr. iij. at night, with sodæ phosp. ʒv. the following morning, and the discharge to be washed away very gently by the same lotion as I used. On Saturday the 25th and Sunday the 26th there was considerable pain in the ear, the discharge was much increased, and discoloured with blood, but the polypus was smaller.

I repeated the medicine; and on Tuesday the 28th the fungous excrescence was so reduced that I could see the pea, which I extracted in two halves by the fine hook, and in the manner advised in my Essay, page 39: a repetition of the medicine once more, saline medicine occasionally since, and the lotion, have completely eradicated all remains of the polypus; and the young gentleman's hearing, which on that side was totally obstructed, has been restored. The utility of this fine steel hook in such cases is very great; and I think there are few substances which can be put into the ears, but what may be removed by the use of one or two of these instruments, judiciously applied.

I am much obliged to the late Editors of the REPOSITORY for their notice of my Essay.

VI.

Case Illustrating the Hereditary Nature of Bronchocele. By Stanley Sterndale, jun. Sheffield.

There is in the London Medical Repository, for January, 1818, an account by Dr. Brischet, of Paris, of his dissecting an infant, born at its full time, in whom the thyroid gland was so much enlarged as to produce the appearance of a goitre or bronchocele: he thought the case more remarkable from the circumstance that the *mother* of this *infant* was affected with the same disease. Hence Dr. Brischet inquires, "Can this complaint be hereditary?" and adds, "it is the *only* instance *I* know of such a *transmission* from the *mother* to the *child*.

The following case will, I think, be acceptable, from its analogy to the above.—Mary Browne, of Crumford, in Derbyshire, was delivered on the fourth day of June, 1816, at the workhouse belonging to Brightside Bierlow, near Sheffield, of a male child, with an enlarged thyroid gland.

I saw the child about ten days or a fortnight after its birth, when I immediately perceived the gland to be enlarged, and made inquiries of the nurse how long she had seen the swelling? She replied, from the day it was born. I asked to see the mother: she was shown to me, and appeared a stout healthy woman: she was then labouring under the same disease, in a very advanced state: the child was in good health, and left the house with its mother soon after, who now lives at Crumford. I had not an opportunity of seeing the father of the child, as he was a resident of the above place.

It was by desire of the *nurse* that I saw the child, who she said had got a *Derbyshire neck*.

VII.

Case of an Extraordinary Enlargement of the Left Lower Extremity. By J. C. Taunton, Hatton Garden.

Mrs. Ruth Elderton, aged fifty-five, 64, Monier Street, City Road, was admitted a patient of the City Dispensary June 13th, 1818, on account of a great enlargement of her foot, leg, and thigh; the skin being thick, rough, and scaly, irregularly of a dark brown colour, forming the true elephantiasis. On inquiry it appeared that this disease had existed for about eleven years, and the history of it is shortly as follows:—After sitting up about a week with a neighbour who was ill, she complained of, and felt cold to the touch: on that

side (left) her leg seemed numbed; about a fortnight after she expressed great difficulty in getting out of bed; while she was making the breakfast her hand fell, and her mouth was perceived to be drawn; about two hours after the eye was also affected: she then expressed herself unwell; could not move the leg properly, but seemed to draw it; went up and down stairs with very great difficulty, and the limbs became nearly useless: about a fortnight after the leg began to swell, but was two or three years before it attained the size it was at the time of death: nothing that was tried had any effect. Dr. James Sims and other professional men attended her: she had tried country air, and went to Bath without any abatement of the disease; catamenia began to decrease, and finally left her soon after the commencement of the attack: bowels regular. Appetite and general health good in the early part of her life: she had married twice, but never had any children. On the 13th of June, 1818, the pilulæ digitalis c̄ scillà (a dispensary formula,) were directed to be taken two twice a day, an opiate pill at night, and the leg to be fomented with a decoction of the poppies: from these medicines, particularly the fomentation, she expressed herself much relieved; the leg began to decrease in size, and continued to do so: her health likewise improved. This continued till the 29th, when she felt herself much better, and expressed her intention of going into the country in a short time: she ate freely at dinner, and took her tea as usual: immediately after which she was seized with an apparent fainting fit, and expired in about half an hour without apparent pain.

On examination (July 1), the texture of the brain was very soft, but no appearance of effusion, as might have been expected (upon the supposition of metastasis,) from the suddenness of death, connected with the previous lessening of the leg. The body and viscera were very much loaded with adipose substance; the heart rather of a loose texture; the lungs perfectly sound; the abdominal and pelvic viscera were all healthy, excepting the gall bladder, which contained many biliary calculi. The dimensions of the limb taken after death were as follow:—

	Inches.
Circumference below the ankle	$19\frac{1}{4}$
Above	$21\frac{1}{2}$
Middle of the leg	22
Around the knee	$22\frac{3}{4}$
Thigh immediately above the knee	$24\frac{1}{4}$

VIII.

Remarks on Mr. Chapman's *Opinions in respect to the Action of the Absorbents.* By J. Lewis, Surgeon-Apothecary, Hanley Castle, Worcestershire.

In Mr. Chapman's communication, in the Repository for June last, entitled, " Observations on Absorption," he concludes, " that the absorbents are, in the execution of their functions, *perfectly passive*, and that the process of absorption is referrible to some principle, *independent of life, to some universal law of nature, resulting from the peculiar construction of the parts concerned in the absorbent functions:*" and in support of this doctrine brings forward as evidence, the diminution in size of the abdomen after death, in patients who have perished from ascites; the flaccid appearance of abscesses after death, which before were very tense; and the loose and flaccid appearance of the cornea after death; which appearances, he concludes, are produced by the action of the absorbents subsequent to apparent death.

In my opinion, those appearances can be accounted for in a much more rational manner than by referring them to the agency of absorption. We all know, that upon the cessation of life the muscular power of contraction is at an end, although the muscles may be excited to contract powerfully for a certain period after death by the aid of Galvanism. In cases of ascites, the muscles, by their power of resistance during life, propel the fluid to the thinest part of the parietes of the abdomen, and give it the tense and prominent appearance. After death the muscles being deprived of their power of resistance, the fluid by its weight acts upon them; the pressure, therefore, of the fluid (independent of the pressure of the air,) is now reversed: the fluid, gravitating downwards after death, presses upon the spine and sides of the abdomen equally; the diaphragm is also pressed upwards into the cavity of the thorax, which during life opposed great resistance to the fluid; consequently the fluid being diffused into a greater space, and into parts where, during life, it had not access, the external appearance of the abdomen must be considerably flattened, (if I may be allowed to use the expression,) or less concave, and apparently less in bulk. But, for the sake of argument, granting that the absorbents do act subsequently to apparent death, I would beg leave to ask, What becomes of the fluid so absorbed? Does it pass off by the kidnies, or by the skin? If it does not, and the absorbents do act, it must be conveyed into some other part of the body, of which we have no evidence. I would also ask, Why it is that the absorbents should act

so powerfully after death, when, previous to that event, it was not possible to excite them to action, or at least very sparingly?

The flaccid appearance of abscesses after death, I think may be referred to the same causes, viz. loss of muscular power, and atmospheric pressure.

The flaccid appearance of the cornea may also be attributed to the same source; during life the constant transmission of blood to the eye, and the action of the muscles of the eye in a constant state of tension: after death, the same causes as before stated operate to produce the flaccid appearance of the cornea, without the absorption of a single particle of the watery humour; for if an eye be removed from the orbit of an animal immediately after it is slaughtered, it will have the same flaccid appearance: yet nobody would affirm that absorption could have taken place in so short a period, at least not to the extent required to produce so flaccid an appearance; and very slight pressure of the eye-ball between the fingers and thumb is sufficient to restore the convexity of the cornea.

PART II.

ANALYTICAL REVIEW.

I.

Surgical Observations; being a Quarterly Report of Cases in Surgery; treated in the Middlesex Hospital, in the Cancer Establishment, and in private Practice: embracing an Account of the Anatomical and Pathological Researches in the School of Windmill Street. By CHARLES BELL.

WHEN we first heard the announcement of these Reports, we felt convinced that their author was about to supply a *desideratum* in Surgery, which had in this Country long and lamentably existed. A something holding a midway situation between the absolute common-place of every day routine, and the more conspicuous, and splendid, and isolated dashes of the art, is, if well executed, most unequivocally calculated in the greatest measure to instruct the younger members of the Profession, and to assist the progress of surgical science. "If well executed," and who that knows any thing of English surgery, does not know that Mr. C. Bell is exactly the indivi-

dual for that undertaking in which he has engaged; for to suppose the entire fulfilment of all the requirements of such a task, is to suppose the performer gifted, as Mr. B. undeniably is, with the combined powers of wielding the knife, the pencil, and the pen, each with extraordinary facility and effect.

The first part of this second volume of Surgical Observations opens with a report on the subject of the venereal disease, on the merits of the Hunters, and on the late innovations in the army practice, especially as it relates to syphilitic affections. The precepts of this paper so entirely square with what appears to us to be the truth of the case in reference to these particulars, that we feel tempted to enrich the pages of the REPOSITORY by extracting the whole of its contents. To this proposition, however, our limits say nay; and they compel us to the reluctant parsimony of considerable abridgement. For the opening remarks, however, we must make room:—

"Just about the time when a safe rule of practice in the treatment of the venereal disease had been established among judicious surgeons—when the experiments and theories of Mr. Hunter had served to give a more correct idea of syphilis, and a simple mode of practice, certain opinions came into fashion, which have increased in extravagance from day to day, and have been attended with the very worst consequences. The question has all at once assumed unusual importance, in consequence of some gentlemen of authority in the army outstripping their brethren in the civil department, and having somewhat suddenly (on the ground-work of these dangerous opinions) commenced practice on that extended scale, which the peculiarity of their situation puts within their power.

"It is impossible to see so large and valuable a part of the community exposed to hazards, greater than the worst perils of the field, without feeling much anxiety. Dear as the health and welfare of soldiers must be to those, who have not only accompanied them in the honours and splendour of victory, but have watched over them amidst the miseries of the hospital, the surgeons of the army must not imagine, that we of the civil department do not hold the interests of our soldiers as near our hearts. The army is a part of the people, withdrawn for a time, and then returned to their homes; as they are now returning in crowds, which sensibly augment the numbers even of the cities, as well as every village and hamlet in the land. The surgeons, too, who have accompanied them, are now restored to their friends, to carry into practice at home the methods on which they have, in the course of their public employment, been taught to rely; and it does, indeed, become a momentous question, Whether they have not been misled into opinions, fraught with dangers of the most appalling kind? To the examination of this question I shall apply myself with the eagerness and attention which belong to so important an occasion.

"Not only has an opinion prevailed that new diseases have arisen,

bearing a resemblance to pox in every thing, but the severity of symptoms; but a notion has been received, and is very current among our young practitioners, that syphilis itself has become a different disease from what it was originally; that it is dying out like the old stock of apples! Another opinion, still more outrageously against the evidence of our senses, and fraught with peril, is, that syphilis is not a formidable disease, unless when combined with the pernicious influence of mercury upon the constitution. And in confirmation of this, it is somewhat too confidently asked, Who ever saw the formidable effects of syphilis, when mercury had not been administered in some period of the disease*?

" * These doctrines are not referred to any precise authority, but every one knows that they take their origin in certain opinions of Mr. Hunter, or from certain suggestions in his Treatise on the Venereal Disease. Looking to that work, and the overstrained eulogy of the author's opinions, it is impossible not to ascribe in some degree to this source, those opinions, and that practice, which I feel myself called upon to say, is dangerous. It is much to be lamented, that there is too often a disposition to admire, in the great men who have gone before us, some unsubstantial theory or opinion thrown out casually, rather than those solid and better parts of their professional exertions, for which the world stands indebted to them. I know that I am accused of wanting due deference for the opinions of Mr. Hunter. If it were so, it would be a lesser offence than theirs, who bestow upon him indiscriminate praise, concealing from the younger part of the Profession how apt his expressions are to mislead them on practical subjects. In reference to the present subject, it cannot be denied, and ought not to be kept concealed, that, with all its merits, Mr. Hunter's Treatise on the Venereal Disease is no guide for practice; and yet, young men learning that it is a book justly esteemed, and that Mr. Hunter was the first surgeon of his day, they naturally think, that they have got in that volume a treasure of sound doctrine, and safe practice.

" To give Mr. Hunter the full measure of his praise, (that praise which one, not a party to professional controversy, would desire to see bestowed,) would include the eulogy of the elder brother also. They were, indeed, *par nobile fratrum*, from whose exertions, improvements of the highest consequence found their way into all the departments of the Profession. But the better parts of Mr. Hunter's character, as well as the discoveries, the judgment, and the good taste of Dr. Hunter, have been thrown quite into the back-ground; and we hear incessant talk about certain opinions of Mr. Hunter, rather than of his great labour, his contributions to science, and his attention to facts. To a character thus depreciated, and a portrait thus injured, and almost defaced, we may find some puny resemblances. Something slovenly in manner, something startling and odd in opinion, with little occasional crude hypotheses, obscurely expressed, have been thought to make a resemblance to him, whose whole life was devoted to investigation, whose passion was the improvement of science.

" When one sees the education of the younger part of the Profes-

" Of that opinion (which I have stated to have been pretty generally expressed) that the secondary symptoms of syphilis appear only in these cases where mercury has been given, I have no difficulty in affirming, that it can be entertained only by those who have seen little of this disease; and I confess my surprise and sorrow, that Essays founded on this assumption should be permitted to go abroad with any portion of approbation. I have lately perused three Essays, in all of which the authors seem to think that they have made great strides to an improved practice. I wish that they may not be found, in this race, to have shown more eagerness than discretion. It is very remarkable, that in these Essays, (where some five hundred cases are brought forward,) there is not to be found one that is well authenticated by accuracy of description. There is not any where in these Essays to be found the description of the matter at issue, a venereal sore. Now the misfortune is, that hundreds and thousands of cases brought from the practice of the army in support of opinions, must necessarily produce a sort of revolution in the mind. A man cannot help feeling staggered in his most established opinions, by a body of evidence apparently so overwhelming: but when we return to the contemplation of two or three well-marked cases, some obstinate facts, standing like landmarks to guide us, we return to the dictates of sober sense, and to the long experience on which our safe practice has been grounded."

Mr. Bell then goes on to report upon the venereal ulcer of the penis, on the groin, on the nose and lip, on the face, in the throat, and in the palate; some of which were evidently making frightful progress before the commencement of the mercureal treatment; and all of which were demonstrably arrested by the due use of that medicine. The following are some of the remarks with which this Paper concludes: remarks which we earnestly recommend to the attentive consideration of all such individuals as may be about yielding their convictions to the specious doctrines of the day, respecting the harmless and almost unspecific nature of lues-venerea; and the

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sion at present, and when we witness the habits of thinking, it is impossible to avoid regretting, that the elder brother should not have had a biographer with the same zeal and comprehension of his subject, which distinguished the writer of Mr. Hunter's Life. Had as true a representation been given of the learning and taste of Dr. Hunter, and of the true genius he displayed — as illustrated by the state in which he found, and in which he left us — of his gentleman-like manners, his address, and his happy eloquence; had he been represented as the man who redeemed us from a state of semi-barbarism in the matter of Anatomy and Physiology, and raised us to some consideration in Europe, the Profession would have found a higher standard of imitation, and have been more advanced in what is essential, as well as in what is becoming."

eligibility of attempting to eradicate the virus without the administration of mercury. We shall not be suspected of meaning to insinuate that Mr. Pearson, Mr. Abernethy, and others, have not been most meritoriously and profitably engaged in following out the hints of Mr. Hunter on these momentous points of practise, and of protesting against the indiscriminate use of mercury in all cases of both genital and general disorder, resulting from sexual intercourse; but assuredly the followers of these able men have outran the mark prescribed to them by their masters; or, in the language of Mr. C. Bell, which we should have been better pleased with, had it not been accompanied with a personal allusion, " they have, by aiming to grasp all the merit, overreached their aim, and fallen headlong."

" When a patient presents himself, (says Mr. B.) you look narrowly both to distinguish the nature of the sore, and to be able to observe its progress. Let us suppose the sore to be small, deep, and foul within; the surface has the consistence and colour of cheese; the edge of the skin hangs over; two holes have run together, and a tender bridal of skin runs across. There is as yet no occasion for hurry; let us wait and observe; and in the meantime the patient is enjoined to do nothing, which, with a mind ill at ease, is hard to perform. In three days the sore is worse, " it shows no disposition to heal, it is one sore, a hard welt is around it, the overhanging edge has wasted by ulceration, and is now elevated, sharp, and raw, while within the cup of the ulcer the surface is still foul." The patient is now put upon a course of mercury, and friction is the better method: when the gums become affected, the sore declares a new character, its progress is interrupted, its bottom becomes clean, the abrupt edges are rounded and close, and in three weeks it is healed; but the mercury is continued until the hardness be quite gone. After this, the patient is not only safe, but free from all apprehension; and when his loins or shoulders ache with rheumatism, when he gets a little sore throat, by cold, or headach, from a disordered stomach, he is not overwhelmed with fears of some lurking mischief. But by this proposal of curing without mercury, the patient is kept much longer in fatigue and restraint, to get this sore to skin over; and when it is accomplished, how stands the account — Is he well? No, not even by the showing of these gentlemen themselves, but subject to constitutional disease. Then comes the treatment by sudorifics, bleeding, the warm bath, and sarsaparilla, with a loss of time from one to four or six months.

" The misfortune of all this is, that the experiment on the progress of a pox, requires several years to complete. And these gentlemen can give us no assurance, that a disease which announces itself by constitutional symptoms for six months' continuance, is eradicated, or that it can be eradicated. If the same influence which has promoted this practice so extensively in the British army, do not interfere to stop it, our soldiers will be brought into a state nothing short of the unfortunate women who lie in the streets.

"In conclusion, in an unlucky hour it has been said, that the proof of a venereal sore, is its not healing without mercury. On this unadvised expression, has there been built this new practice for the British army. On the other hand, I affirm, that with cautious, intelligent surgeons, the *rule has always been to take care that you do not heal the sore by your applications, until you have ascertained its nature.*

"As to the other point, of our being able to remove a certain train of secondary symptoms without mercury, neither is this to be doubted. But no man can affirm what he has no means of ascertaining — that after the prevalence of secondary symptoms for six months, he has, by such method, cured the patient of that disease. In some men, and especially in old men, the disease is of very slow progress; we see it break out in them very long after the infection. We see the disease propagated to the offspring after the recollection of the attack is lost, and would almost be tempted to fall into the opinion of those, who think that the adult constitution may sometimes oppose the influence of the disease, while it is exercised on the fœtus.

"Of all the statements of Mr. Hunter, none is more important in practice than this, that we can destroy the active state of the disease, and yet not the latent disease. Mercury cures secondary symptoms; and yet we cannot absolutely, and to the last degree of certainty, say, that even with mercury we can cure a pox thoroughly rooted in the constitution.

"Now the disease is active when it is entering the constitution, when the primary symptoms are about to become secondary symptoms. Then by mercury we can assure the patient's safety; afterwards, it is a strong probability that you shall, but it is no longer a certainty. It is this consideration, more than any other, which makes me desirous that my pupils should have a correct notion of the treatment of a chancre."

The second division of the Reports now before us is occupied by some very instructive Cases of urethral affections and their consequences: the first of these is a frightful instance of rupture of the urethra from an ineffectual attempt to introduce the catheter, and the consequences of which the attendant Surgeon maintained were merely those of inflammation. The accident occurred on Saturday night. Mr. Bell was called on Thursday. "The swelling of the scrotum, (says the Report) which was enormously enlarged, the Surgeon called inflammation, and putting his hand upon the belly, he bade us observe that the bladder was as hard and as much inflamed as the scrotum. I had only one thing to do, I put my finger in the rectum, proposing to puncture the bladder if it were prominent. It was not to be felt, and I had nothing further to offer. On dissection, there appeared a firm stricture of the urethra, which did not admit the probe. The urethra was ruptured anterior to the stricture, and ulcerated behind it. The bladder had become distended, and was very thick in its coats."

The second is a case of tumor in the perineum, and extravasation of urine from stones obstructing the urethra, which stones were from the prostate, and gathering behind the stricture, had lodged in the perineum; "they had at length sunk from the canal into the surrounding cellular substance, and there forming a sac, they permitted the discharge of urine until one calculus larger than the rest fell against the stricture; this obstructed the passage, and then came the powerful efforts of the bladder, propelling the urine into the natural sac in the perineum, its insufficient walls gave way, and let the urine readily into the cellular substance of the scrotum."

Mr. Bell directs, that when calculi are discoverably obstructing the urethra, they be cut upon and extracted: it will be recollected, that a little less readiness to do this was inculcated in an extract which we introduced in our last Number from Cloquet, who deems it expedient that recourse should first be had to attempts at dilatation (aux moyens dilatans). Mr. Bell is, we perceive, in the general way averse from much forcible endeavour at urethral distension.

Two cases of rupture in the urethra immediately follow the above, the first from a stricture, the other from a fall: both these cases were conducted to a happy issue: in the one, "the decided incision into the lower part of the scrotum effectually drained it, and very little slough was formed: in the other, the perineal tumor, occasioned by extravasated blood, was opened; and, after the incision, the catheter was passed into the bladder."

We next meet with an account of a wound in the perineum, occasioned by the wheel of a cart going over the top of the left thigh and haunch bone. This the Report states "is an irregular torn wound; the ramus of the os ischii is either fractured, or there is a deep cut in it. On withdrawing the finger, blood and urine escaped; and from the smell we suppose that the rectum must communicate with the wound." In this case there was a circumscribed tender tumor above the pubes, which, whether it were the bladder containing coagula of blood, whether it were extravasation among the abdominal muscles, or the result of peritoneal inflammation, were questions that suggested themselves to the attending Surgeons. The man died in eight days from the accident, and the following is the account of the dissection:—

"The bladder was moderately distended, and dark coloured, with inflamed vessels. The colon was much distended, forming three acute turns one above the other, and attached to the bladder. The body of the right os pubis was broken through, and also the ramus of the left os ischii. The first rising of the inflammation (says Mr. B.) after so great an injury, destroyed him. My reader will now under-

stand the object of my anxiety during the patient's life to have been caused by the turns of the colon which had attached themselves to the inflamed bladder, and which I mistook for the distended bladder. He should remember the possibility of a similar occurrence."

A case of abscess in the perineum, from a separation of the ossa pubis, is next related; the injury was occasioned by an endeavour to lift a heavy cask; the actual cause of the symptoms was not discoverable till after death; when upon examination it was found, that the symphisis pubis was destroyed; a portion on each side of the bone was dead and exfoliating, and a strong preternatural ligament connected the bones loosely at the upper part.

The particulars of a case follow, of retention of urine and distended bladder in consequence of stricture, in which the bladder was punctured through the rectum. Mr. Bell is anxious to do away the impression that this and similar cases might make upon the mind of the young practitioner, respecting the expediency of indiscriminately having recourse to a puncture of the bladder whenever it is distended and rises in the abdomen. He therefore gives his reasons in detail for operating in the present instance.

"1st. The distension of the bladder is so great that we may expect a rupture and discharge of urine into the cavity of the abdomen.

"2d. The patient is in a state that will soon be succeeded by delirium.

"3d. Were he now to be relieved by the discharge of a few ounces of urine, it would not be effectual; nothing can save him but so free an operation as will remove all irritation, and all occasion of painful exertion.

"4th. He is now nearly exhausted; further attempts, or a protracted operation, would only hasten on still more unfavourable symptoms. The puncture of the bladder through the rectum offers the hope of immediate relief, without a possibility of increasing the danger. Unless he has twelve hours rest and cessation from irritation, he will inevitably be lost."

The bladder was punctured, and four pints of urine drawn off, to the inexpressible relief of the patient. There was a neglect in the house Surgeon to retain the elastic gum catheter in the canula, which last slipped from the orifice of the bladder while the patient was at stool. The man died six days after the operation. The coats of the bladder were thickened and studded with white spots of coagulable lymph, "a consequence of the stricture, and independent of the operation." The prostate gland was enlarged, and surrounded with abscesses; and the urethra was also extensively ulcerated.

"The state of the bladder, and urethra, and prostate gland, (says Mr. B.) gives us the less reason to regret the slipping of the instrument from the bladder. It is no apology that this accident has often happened. It is essential to the effect of this operation, that the canula or bougie be kept in the wound for two or three days; after which, when the parts have suffered some inflammation and condensation, the urine is freely discharged from the bladder into the rectum. Had this been accomplished here, even with all the marks of disease which the parts exhibited, I think the life of the patient might have been prolonged."

In the next very interesting case, one of "bursting of the urethra, and sloughing of the perineum, where it was necessary to puncture the bladder"—Mr. Bell performed the operation above the pubes, because the effects of a tube introduced through the abscess in the perineum had already been experienced, and because the exceedingly irritable state of the sufferer "did not admit of the attentions necessary to preserve the canula in its place," if the operation had been performed in the rectum. "A proper apparatus being adapted, the patient turned himself to one side, and withdrew the cork, and emptied the bladder three times a day; and thus passed another fortnight." But the constitution had been suffering for a very long time, and at length he sunk.

An account of a complicated case of stricture and abscess follows this, in which the urethra was opened by an incision into the perineum; and Mr. Bell takes occasion here to remark upon a circumstance which, he says, is not sufficiently allowed or appreciated, viz. "that the membraneous part of the urethra is always dilated in stricture." He tells us, that "in upwards of a hundred cases of obstructed urethra, examined by dissection, he has not found one where the canal was obstructed farther back than that part (naturally narrow) where the urethra is embraced by the ligament, and suspended to the os pubis, or where it leaves the bulb of the spongy body; and uniformly, when there has been a narrow stricture in the urethra, that portion of the canal which is called the membraneous part, and also that which is embraced by the prostate, have been found remarkably dilated, and this especially when there has been stillicidium urinæ.

The following are the practical inferences of our author on the subject of puncturing the bladder:—

"1. If a patient have a stricture of the urethra, which gives a fair prospect of being cured, provided only time were afforded; if, by any imprudence of the patient, or by the improper interference of the surgeon, the canal be obstructed, and the bladder distended, we may look forward to puncturing the bladder. But before having recourse to this, (which is never to be done on light occasions) we have much to

attempt, in order to relieve the inflammation of the neck of the bladder, and to relieve the spasm of the muscles of the urethra, which have always a great share in the obstruction. We must endeavour to draw off the urine by the proper use of the bougie, or the catheter. But all failing, the bladder being more distended, so that each hour the probability of relief is diminished, the bladder is to be punctured from the rectum, and the flexible catheter passed through the canula, and kept carefully in its place for three days. It is when the bladder is quite relieved, that the stricture is to be removed, and the cure accomplished.

" 2. And here I am forced to remark, that the operation of puncturing the bladder has a bad character, for the same reason that the operation for hernia, or for obstruction in the larynx has, viz. imprudent delay.

" 3. If a man have a stricture in the urethra, and the surrounding parts be indurated, so that there is no immediate hope of removing it by the caustic or the bougie; if, with this, there have occurred a sudden obstruction, and the bladder has risen, and has lost its action, and there remains no expectation of spontaneous relief, or of ease from lesser remedies, then I apprehend it is better to open the urethra, in the perineum behind the stricture.

" 4. And this is to be immediately done, if the symptoms indicate a rupture of the urethra, and effusion of urine.

" 5. This last consideration gives rise to another question of the greatest consequence in this department of practice, and one on which there is not any thing written, as far as I have observed. It is a very common occurrence, that the patient, who has a confirmed and obstinate stricture, shall have, in consequence, a harassing obstruction wearing him out, even although the retention be not in the last degree. The bladder is not in this case distended, but, on the contrary, the urine is sent off as quickly as it descends from the kidney. But this incessant stimulus and irritation are attended with fever and exhaustion, with such continued torture, and such incessant call to pass urine, day and night, that the fever terminates in delirium, in effusion on his brain, or inflammation of his lungs; nay, without any particular determination, he is exhausted, and dies. This is the manner of death of by far the greater number of those who have died from disease of the urethra. Often, very often, the catastrophe is accelerated by improper interference, without restoring a free evacuation.

" In this case it is difficult, if not impossible, to puncture the bladder from the rectum; it is impossible to do it above the pubes, for the bladder is not full; it does not, perhaps, contain an ounce of water! In such a case, I hold myself authorized to cut directly upon the stricture, and to open a passage into the urethra behind it. By relieving the bladder from the necessity of violent and frequent action, the cause of the thickened coats is removed, they relax and permit the accumulation of urine more and more. Whether we are to attempt the further destruction of the stricture and the restoration of the natural course of urine just at this time, will depend on the strength and resolution of the patient."

A Section of the present Number of Reports is devoted to remarks on mere sympathetic irritations, "showing that errors in indigestion, and the irritation of matter in the intestinal canal, produce pains in the bladder and the urethra, which are often mistaken for symptoms of stricture, and for stone in the bladder." So much has been recently said and written on the head of sympathetic irritations, that it is to be hoped apprehensions of mistake on this head may be considerably diminished; and we shall do nothing further in the present instance than recommend these cautions of Mr. Bell to such as are still indisposed to appreciate in practice the fact of connexion and consent, as it was formerly termed, of parts and organs. One remark we think might be usefully added to those which our author has introduced, namely, that in cases of mere consequential and sympathetic irritation, the anxiety and apprehension of the patient are often in an inverse ratio to actual disease and danger; and may hence be sometimes taken as an index to the non-existence of the suspected malady.

The following strictures, however severe and pointed, we must be permitted to insert, as conveying hints, which, if attended to in practice, would save much of unnecessary embarrassment to the practitioner, and irritation to the patient;—

"In the preceding Report, I have affirmed, that there never occurs a proper stricture, posterior to the internal fascia of the perineum. But the inflammation to which the parts behind are peculiarly exposed, very often gives rise to symptoms which are readily attributed to strictures; these parts are the *Cowper's gland*, the *sinus pocularis*, the *prostate gland*, and the *vesiculæ seminales*. There are men whose hourly business is poking into this passage with bougies, who, if they have heard the names, know neither the place nor diseases of these parts, and sometimes, by forcing what they consider a stricture, they rupture the membrane, and enter their instrument into the substance of the prostate, or fix it in the sinus of the seminal caruncle."

Some remarks are introduced on the cure of white swelling of the knee, in which Mr. Bell suggests whether, as the constitutional inflammation originating this complaint exists primarily in the capsular membrane, the irritation might not be checked or changed by raising a new action from passing a seton directly through the joint; and he presents his readers with a detail of two cases which serve to justify his anticipation on this head. The utmost care, however, is required, not to defeat our own purpose by want of discrimination and attention to circumstances of irritation, either natural or excited by the new remedy.

The paper on the axis of the pelvis is introduced for the purpose of impressing on the mind of the lithotomist the

natural curve and course of the pelvic hollow, and the alteration which is made in it by the different positions of the patient's body.

The report on hernia mainly bears upon the circumstance of effusion into the hernial sac, and the necessity of distinguishing the softness and compressibility of the hernial tumor consequent upon this effusion, from that which is occasioned by the flaccidity and emptiness of the gut. "You perceive (says the reporter to his pupils) how you may be deceived from this source, and think you are pushing up the gut, when you are only pressing out the fluid from the sac, and making room for a further descent of the gut."

On the subject of congenital hernia, Mr. B. maintains, contrary to the position of Mr. A. Cooper, that the thickening of the neck of the sac is a matter of common and very important occurrence; and he objects strenuously to that author's proposal of merely dilating the sac with the fingers. In these opinions we believe our author is borne out by the majority of the best Surgeons of the day.

The operation of lithotomy is the next and last topic of Mr. Bell's animadversion, and his principal points of remark respect the size and situation of the external incision, and the question of pursuing the operation with the knife or the gorget. On the extravagance of his brother's strong and caricature language, in reference to bold and large incisions, he is very severe. "Let the knife of the operator (says he) enter by the left side of the bulb, and under the arch of the bone; let it be carried down by the side of the anus, and pass the anus one inch. This will be sufficient for the extraction of the largest stone, and long enough, and consequently low enough, for draining off the urine."

Our author, however, agrees with his brother in preferring the knife to the gorget; and it is only that the most dexterous and the most experienced Surgeons of our time still prefer the latter instrument, which would make us hesitate in acceding to the arguments in favour of the former. The staff, Mr. Bell tells us, is mostly made too small, and its groove not sufficiently wide and deep.

The following is a summary review of the several steps of the operation, with which the present part of the volume concludes:—

"We have entered into so many details, that the description of the operation must have the appearance of intricacy: but when all goes well, this is the course of things. 1. The staff is struck upon the stone, and made to rest in contact with it. 2. The point of the knife is struck into the left side of the perineum, just under the arch of the pubes; it is carried downwards by the side of the anus, and past it.

3. The fore-finger of the left-hand is put into the wound, and the rectum pressed down; and the muscles and the internal fascia cut across. 4. The edge of the knife is turned up, and the membraneous part of the urethra and the face of the prostate gland exposed. 5. The point of the knife is pushed into the groove of the staff, and carried forward, and the prostate gland is opened by a lateral movement of the knife. 6. The fore-finger of the left-hand follows the knife. The edge of the knife is directed by the fore-finger, and enlarges the wound of the bladder; the knife is withdrawn, and the fore-finger is thrust deeper, so as to touch the stone. 7. The forceps are introduced, and touch the stone."

It is unnecessary for us in conclusion to remark, that we have perused these Reports with much interest and instruction.

Already has it been said that Mr. Bell uses his pen with ease and adroitness. Sometimes, however, there is too much of gall mixed up with his writing materials, and occasionally we find little awkwardnesses of expression, arising out of attempts at point. A slip or two may also here and there be detected on the score of scotticisms, such as "free of," and would in the place of should: and the printer has been permitted to copy a prescription at page 34, without correction, the Latinity of which is rather defective. These are, however, but a few, and almost indiscernible spots on a fair and polished surface; and most heartily do we recommend the present series of Reports to our professional brethren, as for medical readers constituting an excellent *Quarterly Review.*

II.

General Views relating to the Stomach, its Fabric, and Functions. By T. C. Speer, M.D. Bath.

Than the use of general terms in medicine, nothing is more magical or more mischievous. It is astonishing with what facility such terms are permitted to satisfy the mind, while the actual meaning which they convey is often of the most vague and unsatisfactory nature. By some of our readers we may, perhaps, be deemed rather heretically courageous, in venturing to condemn even the orthodox language of the present day as, in some sort at least, obnoxious to the charge now preferred. "The digestive organs!" What do we mean by this voluminous enunciation? Why, that some portion or other of that vast and complicated machinery destined for the digestion and assimilation of the aliment is clogged, or obstructed, or in some way interrupted in its action. But is not this like the termination of Johnson's Rasselas, coming to a conclusion in which nothing is concluded? Ought we to consider our

investigations as having properly closed, till we have endeavoured to ascertain the actual nature and locality of this digestive derangement, assuming its existence? or if we do not, let us cease to deride as empirical and unmeaning other sweeping terms, such as nervous and bilious; and, at least, be consistent in acknowledging an equal ignorance and indolence in the wholesale employment of the former, as in the universal adaptation of the latter.

The work before us is small in volume, and certainly not of very high pretensions as to value. There is, however, at least something commendable in its author endeavouring to give the strict pathology, as connected with the physiology of those affections which are incident to this one organ, the stomach; and thus in reference to stomach affections, to render precise and plain what is certainly, in the general way, viewed through too misty and obscure a medium.

"It is only (says the author) by a careful study of the structure and appendages of each organ, that we are enabled to judge of its species of life and actions, and the part it performs in the operations of health and disease. Where arrangement is the most exquisite, derangement will be most liable. If the human frame holds the top link in the chain of organization, it no less holds the top link in the chain of disease. In like manner, each of its organs has its particular link in smaller but similar chains; each has its particular species of vitality and mode of action; and each requires particular views. After the study of individual structure, the relations of each, as well with the surrounding parts as the whole system, naturally come to be considered; each may be viewed as part of a system, and that system as part of the whole. By this course we may be able to trace their minute dependencies and connexions with each other; the causes and character of their derangements; and thus lay the foundations of a just and enlarged pathology.

Dr. Speer commences by a general sketch of the varieties in the animal creation, in respect of the assimilating apparatus: he then proceeds to a more particular description of the human stomach, as preliminary to its pathological affections. These anatomical introductions to his subject cannot be expected to contain any thing novel, or worthy being extracted in our pages. The following account, however, of the peculiarity of the organ in question, both as to its nerves and blood-vessels, is, to say the least, placed in a pleasing and very interesting point of sight:—

"As before observed, the stomach is largely supplied with two sets of nerves, cerebral and ganglious. These two sets seem to be in relation to these two offices: by the former it seems to be an organ of sympathy; by the latter, an organ of elaboration. Hence the former set appears more generally diffused over its extent; the latter more

at particular portions, and more accompanied with blood-vessels: both sets of nerves are largely and profusely distributed, and both meet here as at a common centre; and hence some physiologists have considered it as a second nervous centre. It is not easy to trace by the knife this nervous distribution, and the points where the two classes meet. As coming from the brain, the par vagum is seen here to expand in its ramifications, and to terminate; having passed the diaphragm with the œsophagus, two great branches of this nerve form about the cardia two plexuses; the anterior one is generally seen to expand over the anterior surface and great curvature, and the posterior over the posterior surface. As coming from the ganglia, we see the cæliac plexus (the principal division of the solar plexus, and of which it appears a prolongation,) lying behind the stomach. We see it envelope the cæliac artery, and afterwards ramify into several branches about the small curvature, and uniting in several parts with those of the par vagum, always following and connected with branches of the gastric arteries, and gradually with those losing themselves between the coats*.

"In the quality and distribution of these twofold nervous filaments, we see the stomach possessing great varieties; but in their abundance we always see it particularly marked. By this ample combination of them it is particularly distinguished from other organs. The lower intestines certainly exhibit the twofold nerves, but in a far less ample manner; their sensibility is often very inconsiderable; it is chiefly by ganglious filaments they are influenced. It is not because diarrhœa often results from the almost immediate application of damp to the feet that we must conclude the bowels to be possessed of such compound ratio of sensibility. If they be also so much affected by passions of the mind, it is only a secondary and indirect affection, though the operation is so rapid. The quality of their sensibility is rather *latent* than *perceptible; ganglious* than *cerebral;* they do not much select or perceive; their offices seem rather mechanical than vital; *ganglious* sensibility being more of the involuntary kind, they are more under the influence of habit, and lose more of this sensibility by frequent impression: hence purgatives must be increased in their doses. In the stomach, on the contrary, the sensibility being as much cerebral as ganglious, it is increased by habit; hence emetics, if much used, must be diminished in their doses.

"When we look to the blood-vessels of the stomach, we find them similarly numerous and abundant. Proportioned to its bulk it, perhaps, receives the greatest number of any organ in the body. The greater part of the blood going from the aorta to the cæliac artery is confined to it; although the coronaria ventriculi is the smallest of the three branches of this last, yet the two others give numerous ramifications to it. The spleen, liver, pancreas, and omentum, are also supplied by the cæliac; and thus a circle, as it were, is formed, of which

* "Bichat has most ingeniously laid down one chief distinction between cerebral and ganglious nerves; the former seldom or ever accompanying arteries; the latter always."—*Bichat Anatom. Descript.*

the stomach may be termed the centre; here therefore, as by some it has been termed a second nervous centre, may it not be called a second circulating centre? Indeed in this region of the system we always find a remarkable concentration of blood-vessels as of nerves.

"The cæliac (in its trunk) is the shortest of the abdominal branches of the aorta; it goes off at right angles; the coronaria ventriculi when given off from it ascends and gets to the right side of the cardia, runs along the concave surface of the stomach, and approaches the pylorus, where it anastomoses with branches given off by the hepatic artery. This is its general course; but there are many varieties and irregularities often observed; it chiefly supplies the cardiac region; and in its course along the concave surface gives off numerous lateral branches, which anastomose and join with those of the lower branches. The pyloric region is chiefly supplied by branches of the other two divisions of the cæliac trunk, viz. the hepatic and splenic: these form a kind of arterial arch around the pyloric region, very remarkable, and easily perceived. Thus the cardiac and pyloric vessels fully communicate by anastomosis, and thus every portion of the stomach is supplied. This is the general arterial distribution, but varieties very often occur; and indeed the three branches of the cæliac are often so mixed and confounded with each other, that they cannot be distinguished: however, we find every part and portion, even the minutest, abundantly supplied. Between its innumerable folds and rugæ we see capillaries every where entwined and convoluted in a most remarkable manner."

From fabric our author is led to function, and the first remark under this head that struck us as having something in it of point and practical utility was the following:—"The vital and chemical powers of this organ seem more opposed to each other in general than the vital and the mechanical: in nervous affections of the stomach, and when there appears an irregularity or diminution of vital power, (as in cases of dyspepsia,) the indication of the medicines used is to increase the tone and astringency of the fibres, not to promote an increase of the gastric fluid." This doctrine, however, of imparting tone, and thus secondarily and subordinately acting upon the secretory vessels, is, in the present day, going very much out of fashion; nothing is admitted now either pathologically or practically, that does not place the vascular above the vital or nervous power; a change in the order of connecting influences which, in our minds, has rather too decidedly come to be established upon the ruins of the nervous and fibrous pathology: but more of this in another place.

Dr. Speer, regarding the digestive process as the combination of mechanical, chemical, and vital powers, introduces the following cursory remarks on the derangements to which each of these faculties is occasionally, and either separately or conjunctively, obnoxious:—

"Under the head of mechanical power, the muscular coat is chiefly

to be considered. During chymification the stomach is shortened, and the cardia and pylorus are brought nearer together. During this contraction of the fibres, these apertures remain closed, and the whole organ remains, as it were, closely sealed up, and intent on its work. Any gases that escape from the new combinations going on among the chymous materials, have therefore no outlet. When the fibres are deficient in this contractility, the closure of the apertures must be imperfect (particularly that of the cardia); hence gases escape into the œsophagus and mouth, and thus eructations are among the most obvious and direct symptoms of indigestion in general. The passage of gases by the pylorus is more difficult, because here the fibres have a stronger power of contractility, are more circular, and operate much more like a sphincter than at the cardia. If the fibres are wanting in contractility and strength, the peristole also must be imperfect, together with the trituration, and thus two of the chief mechanical agents are impaired.

"Under the head of the chemical powers of the stomach, the causes of indigestion relate solely to the gastric fluid. Of this species we cannot here say much satisfactory. We know but little of this fluid, and still less of the phenomena of its secretion, its quantity, or its qualities.

"Under the head of the vital powers of the stomach, the causes of indigestion relate chiefly, it may be said, to nervous action, and indeed they are so numerous as to constitute an entire class. Of these much has been written, and we have here little room for them.

"When we look to the vast supply of nerves to the stomach; and when we consider their qualities and arrangement, as already noticed, we must see that indigestion in general must belong to this class of agents more than any other. Indeed almost the whole pathology of the stomach may be sought for in nervous action. Its organic diseases are very few compared with those of the heart or lungs, or other viscera. In indigestion the nerves are evidently the presiding powers, and by their order or disorder the action of the whole is either regulated or deranged. If the fibres are weak or diseased, the mucus scanty, the gastric fluid vitiated, &c.; all these must be chiefly sought for in the nerves, and attention to these must be the first indication of cure. Under the class dyspepsia are included the greater number of affections of this kind; and in all these tonics are our chief and only reliance. But it is not the stomachic nerves alone that are here concerned; it is the nervous system in general. When a derangement takes place in this organ, it is communicated to distant parts; these in their turn give it back to the stomach, which, as it were, perceives and feels the injury. Thus it becomes a focus of disease, in like manner as it is a focus of life. In dyspepsia general tonics are often of more service than local tonics; and perhaps cold bathing and exercise alone have oftener cured the disease than any thing else. In dyspepsia all the six agents hitherto mentioned may be deranged more or less; and yet I believe all may be found to originate from, at least to be connected with, nervous derangement. The appetite will be irregular, sometimes scanty, sometimes voracious; acidities will be felt; the food will be undissolved; pain and spasms will be felt: all

these and many other symptoms will ensue, and all will generally be found in nervous derangement. (We all know the meaning of the term "nervous derangement," although we cannot well express it*.)

"The stomach thus, from its peculiar nervous distribution, gives and takes disease *from* and *to* all parts; and we find that the whole class of neuroses are intimately connected with the disorders of digestion. Even in affections of the most distant organs, and where we would least suspect its interference, we find it often concerned, though its functions seem regular. Dissections have shown us that in almost every case of mania the stomach and intestines have been a principal tell-tale of disorder; and I have very little doubt, but that in inquiring into the causes of insanity with us, we must oftener look to indigestion. At least I think we must give the stomach and the brain the physical share of this malady. May not the increasing and enormous consumption of ardent spirits in this country, afford a chief reason for the progress of this dreadful disorder? Perhaps in Scotland there is a greater consumption of these in latter days, than in any part of Great Britain. Scotland is certainly not the land of passion; and may we not chiefly ascribe its modern increase of lunatics to this cause? Even in the Highlands of that country, and its most sequestered scenes, where the habits of the people are of the utmost simplicity, and where life presents so few excitements, (except whisky), I have observed, in a most remarkable degree, the great proportion of lunatic cases, and the great variety of the low stages of the disease."

The latter part of this extract, although upon the whole, perhaps, sufficiently admissible, in reference to the modus operandi of alcohol, requires, we think, a little correction to make it of universal application. We fully agree with the author, that mental derangements are often the immediate consequences of chronic insidious irritations, induced in the stomach by the inordinate use of stimulating liquors; and that these irritations are either extended or transferred to some portion of the cranial contents; but we also feel convinced, that these disorders in the sentient and intellectual organs are not seldom the direct consequences of deteriorated nervous energy, brought about by the excitations alluded to, without such excitations having been productive of any vascular change, tangible or perceptible, in either of the organs in question. But, as just hinted, it is not our intention in this place to pursue the subject of the origin, modes, and forms of general disease.

In conclusion, we repeat it as one of our principal motives for having called the reader's attention more particularly to this pamphlet, that we wish to see the topic of alimentary, and intestinal, and chylopoetic maladies, treated of with somewhat more of particularity and precision than it has hitherto received. It is not sufficient that we talk of the liver,

* See Trotter on the "Nervous Temperament."

or the stomach, or even the digestive organs; let us endeavour to ascertain more minutely what is the actual state of these organs, separately and combined, under the alleged circumstances of chylopoetic derangement. The following are a few particulars which might be profitably discussed in a work devoted to the development of such views as those we now advert to:—State of the surface of the body in reference to its influence upon one or more of the abdominal viscera; marks of distinction between stomach, duodenal, and liver affections; whether the malady of the particular organ be in the circulatory, muscular, or secretory portion of it? Differences of symptoms as arising from mere remora of vessels and actual inflammation; particular seat or origin of this vascular irregularity. State of the spleen in reference to the secretory viscera; pancreatic disturbances; distinguishing features between sympathetic and organic ailments; mental states as causes or consequences of chylopoetic conditions; pulmonary organs, how and to what extent affected by ventricular derangements? Difference between idiopathic and sympathetic affections in the lungs and heart, from the most simple and slight, to the most complicated and formidable grade, &c.

We shall not be misunderstood as meaning to insinuate that these several particulars have not been taken up and ably animadverted upon by different pathological writers, but still there seems to be room for a treatise that should give a totality and connexion to the various members of this whole body of doctrines; not to say that most of the authors who have treated on the subject, have had it principally in view to establish their own peculiar tenets, and have thus been cramped and confined in reference to the appreciation of general laws.

A work such as we have suggested would, we think, not be in bad hands if undertaken by the author of the little tract which has thus been the immediate occasion of the present strictures.

CORRESPONDENCE WITH THE REVIEWING DEPARTMENT.

To the Editor of the London Medical Repository.

SIR,—As it is not my intention to remonstrate against any of your strictures on my work on "Atmospheric Influence," most liberally, ably, and candidly reviewed in your last month's Journal, but only to correct some misapprehension on the part of the reviewer; I trust you will give these few lines a place in your next Number.

In respect to the doctrine of *morbid sympathies*, generally, I am sorry to find the reviewer holds it at so cheap a rate; for, during a pretty extensive practice of twenty-five years, I

have almost invariably observed, that those who were most conversant with disease, were the greatest advocates for the operation of what is termed *sympathy*. But when the reviewer states that I attempt to explain the origin of those diseases on which I have treated in my essay *exclusively* on the principle of *sympathy*, he does me great injustice, and he almost convinces me that he has not read, with attention, the work which he has criticised. I have, indeed, expressly guarded against this misconception, by heading my sections thus, for instance:—

Section V. "Cutaneo-hepatic Sympathy; or, Observations on those Derangements of the Hepatic System, which *are influenced by, or connected with* the above-mentioned sympathy." Surely it is too bad to make me assume *sympathy* as the *sole* cause of disease, when I merely adduce it as an elucidating or explanatory principle in their causation. But to bring the matter at once to the test. Let the reviewer point out a single *other cause* of disease which I have neglected or overlooked. Let him remember that I was tracing the influence of *atmospheric* impressions on the surface, as causing derangement of function or structure in *internal* organs; and I solicit the favour of his giving a better explanation of the *rationale* than I have done.

In respect to venesection in tropical dysentery, I am very glad to hear that it was adopted in that portion of our Indian settlements where the reviewer resided; for I can prove, by the most incontestible witnesses and documents, that in whole provinces of that empire, the dread of the lancet is as great as ever. A gentleman from Bengal told me this very day, that a drop of blood is rarely, if ever, drawn at Calcutta, either in fever or dysentery.

It is stated in the review, that I go hand in hand, *passim*, with Dr. Armstrong, on the subject of fever. The natural conclusion is, that I *copied* from the work of my excellent and esteemed friend. No one would be more forward to rebut this supposition, than my friend himself, who is well aware that the section on fever was printed in the first edition of my work on tropical climates five years ago. Of the *coincidence* of opinions and practices between Dr. Armstrong and myself, however, I am very proud.

These points adjusted, I am free to bear testimony to the able, liberal, and independent character of the review of my work; and to the writer or writers of it I beg to return my most unfeigned thanks, while I express my entire satisfaction and esteem.

I am, Sir,

Your most obedient Servant,

No. 1, Albany, Piccadilly. JAMES JOHNSON.

PART III.

SELECTIONS.

We present the following extract to our readers as usefully applicable to the treatment of hard waters in general:—

Experiments made upon the hard Water at Black Rock, near Cork, with a view to render the Waters of Limestone Districts more applicable to domestic Uses. By Edmund Davy, Professor of Chemistry, and Secretary to the Cork Institution.

There is a striking similarity in the appearance and in the composition of the great arrangements of Nature in different countries, and it extends to the waters, as well as to the atmosphere and the solid strata of the earth. The chemical constitution of water is uniformly the same in every part of the globe, and all the variable properties it exhibits in different situations, whether evanescent or permanent, are principally owing to a diversity of soil. All natural waters contain a variable quantity of foreign ingredients, which they derive from the strata through which they flow, or the atmosphere by which they are surrounded. The purest springs usually rise in beds of gravel, or in siliceous or argillaceous rocks, and they contain, for the most part, only a minute portion of saline matter, which is principally common salt. The waters of limestone or calcareous districts generally contain a much larger quantity of solid ingredients. The substances they frequently hold in solution are carbonate and sulphate of lime, and these earthy salts occasion that peculiar quality in waters, commonly known by the name of *hardness*. Hard waters, as is well known, do not readily dissolve soap, or form a good lather with it; on the contrary, they partially decompose it, and a light flocculent substance is produced, which is insoluble in water. Hence such waters, in their common state, are unfit for washing, and for other domestic purposes; and they are conceived to be very inferior to soft waters, for making vegetable infusions, such as tea, coffee, &c.

Though I have not made an accurate chemical analysis of the water in question, I presume my experiments will be found sufficiently minute for practical purposes. I purpose briefly to notice the effects of different chemical agents upon the water; to point out the causes of its hardness; and to

deduce from facts and experiments, some simple, and I trust efficient modes of rendering it more subservient to the common purposes of life.

1. As soon as the water was taken from the well, it was put into bottles or stone jars, well corked, and usually examined immediately on its arrival in Cork. The water, on being drunk fresh from the pump, is said to be rather brisk and pleasant, though there are some who do not think its flavour agreeable. After it has been exposed to the air a little time, it acquires a degree of flatness, and produces in the mouth an unpleasant taste, as though it contained putrid matter. The insipid and disagreeable flavour of the water after exposure to the atmosphere, seems to be owing to a loss of air from a diminution of atmospheric pressure; for no sooner is the water raised from the well, than small globules of air are disengaged from it, and this effect continues for some time.

2. The water gradually changes litmus paper, and gives to its blue colour partial tints of red: but this change does not take place after the water has been boiled. The mineral acids, as the muriatic and sulphuric, disengage from the water minute globules of gas; indeed the water by simple exposure to the air evolves gas; and this effect is promoted by the addition of an acid, and destroyed by that of an alkali. Lime-water in small quantity occasions an immediate cloudiness in the water, which soon disappears, and the water resumes its former transparency; but when added in large proportion, there is a permanent deposition of carbonate of lime. Even after the water has boiled, lime-water occasions a milkiness in it; but this effect is not produced after the boiling has been kept up for a quarter of an hour. These results prove that the water contains an uncombined acid; that this acid is the carbonic, and that continued boiling is necessary to expel it.

3. After the water had been exposed in a large shallow glass vessel to a warm atmosphere, upon the top of the Observatory of the Institution, (during the greater part of two fine summer days in June,) an extremely thin and scarcely perceptible earthy crust began to form on its surface. This crust dissolved with effervescence in diluted muriatic acid, and its earthy matter was precipitated by the fixed alkalies in their caustic and carbonated state, but not by ammonia. Hence it was carbonate of lime originally held in solution, as would seem from the foregoing statements, by carbonic acid gas. The separation of carbonate of lime in this case is to be referred to the diminished solvent power of the water, arising from the loss of a portion of carbonic acid, and of water, by evaporation. The water, after the exposure men-

tioned, still rendered lime-water milky, and afforded, with alkaline substances, a precipitate having similar properties to the earthy crust already noticed. And these circumstances seem to prove that the water still contained carbonic acid gas and carbonate of lime.

4. The water immediately decomposes an aqueous solution of soap, and a white flocculent substance swims upon the surface. Hence the water in its common state is unfit for washing. If a solution of fixed alkali, in its common caustic or carbonated state, is added to the water, a cloudiness is produced, and there is a gradual deposition of earthy matter, which on examination proves to be calcareous. The water in consequence of such treatment becomes soft, and does not decompose soap, and may be used for washing and other domestic purposes.

5. If the water is boiled, and the boiling continued for fifteen or twenty minutes, a quantity of air is disengaged, which renders lime-water milky, and there is a deposition of earthy matter, which exhibits all the characters of carbonate of lime. After this treatment the water becomes soft, and may be employed for washing and other culinary purposes: lime-water is now incapable of impairing its transparency, and it is scarcely affected by the pure or carbonated alkalies. Hence, it seems, the carbonic acid gas and carbonate of lime contained in the water may be separated by continued boiling.

6. The water, when treated with nitrate of silver, becomes cloudy, indicating the presence of a portion of common salt. Pure ammonia added to the water separates a very minute quantity of earthy matter, and indicates a little magnesian salt, which is probably the muriate. Nitrate of barytes produces a very slight effect, and shows a trace of alkaline or earthy sulphate. Neither prussiate of potash nor solution of oak bark occasions any change in the water after several hours; from whence the absence of iron in it may be inferred.

From the foregoing statements, which are founded upon experiments carefully made and repeated, I venture to conclude, that the Black Rock water contains an excess of carbonic acid gas, which holds in solution a portion of carbonate of lime. This earthy salt gives to the water its peculiar characters, and especially its *hardness*, which is its distinguishing quality. The water certainly contains other foreign ingredients, such as muriate of soda, and a little magnesian salt; but these substances (common to almost every water) are scarcely worthy of notice, because they exist in quantities too small to be sensible to the taste, or to produce any medicinal effect. From some comparative experiments I have recently made upon the pipe-water commonly drunk in Cork, and the

Black Rock water, there seems to be a great similarity, not only in the foreign ingredients common to both, but also in the actual quantities they contain; with the exception of the carbonic gas and carbonate of lime peculiar to the Black Rock water. And if the pipe-water were impregnated with an excess of carbonic gas and a portion of the lime-water, an artificial water would be formed similar to the natural water at Black Rock.

The preceding experiments seem to lead to two simple modes of improving the Black Rock water, by which it may be rendered soft, and more generally applicable to the purposes of life. One is, by the use of an alkaline substance: the other, by continued boiling for at least a quarter of an hour. And it may be proper to make a few remarks upon each of those methods.

1. It is well known to chemists, that waters naturally *hard*, from whatever cause their hardness may arise, are rendered soft by an alkali; and the fixed alkalies, in their caustic or carbonated state, afford a *general* remedy, applicable to every particular case of the kind, that can occur. Boiling, on the contrary, is only a *particular* remedy for *hardness* in waters, in cases when it arises, as in the water at Black Rock, from carbonate of lime held in solution by carbonic acid gas. The acid being volatile, and its combination with the earthy salt retained by a feeble affinity, their union is destroyed by continued boiling; the earthy salt (the cause of the *hardness* in the water) being precipitated, and the acid expelled. In other cases, where the quality of *hardness* in waters is occasioned by the presence of sulphate or muriate of lime, &c. no changes can be produced in such waters by *boiling*, and the agency of an alkali is indispensably necessary to render them soft. The addition of any alkaline substance to the Black Rock water, such as potash or soda and their carbonates; the substances known in commerce by the names of kelp, barilla, pearlash, &c. will all neutralize the fixed air in the water, precipitate its earthy matter, and render it soft. I found about ten grains of pure dry soda sufficient to render a gallon of the water perfectly soft; but the use of this substance is precluded, from its expense, and the difficulty of procuring it, in this part of the country. I conceive about twenty grains of the common potash or soda of commerce would answer the same purpose. As any of the alkaline substances before enumerated may be used with success, a few practical trials would be sufficient to enable any one to decide upon the alkali that is the most efficient and economical. In cases when the water is to be rendered soft by an alkali, for the purpose of washing, no danger can be apprehended from a slight excess

of alkali; on the contrary, it would be an advantage; for the alkali, as is well known, is the efficient cleansing principle in soap. It would, I think, be advisable to add the alkali to the water previous to its being heated; and to stir it until it is dissolved. A friend of mine was informed that lime-water might be used for improving the water by separating the fixed air it contains. Lime is almost the only common substance possessing alkaline properties, that cannot be employed for such a purpose; the existence of the smallest quantity of it in a water is sufficient to give it a certain degree of hardness. It is to the salts of lime, particularly the sulphate and carbonate, that the greater number of *hard* waters owe this peculiar quality.

2. It is to be remembered that simply boiling the Black Rock water is not sufficient to render it soft. To produce this effect, the boiling must be continued for fifteen or twenty minutes. And this fact serves to explain a seeming paradox. It is generally admitted that hard waters do not draw tea so well as soft waters: yet the hard water at Black Rock is said to answer extremely well for this purpose. But in most cases, it may be observed, the water is unintentionally allowed to boil at least fifteen or twenty minutes previous to the making of the tea; and thus the hard water, without any design, is rendered soft. I have, however, heard occasional complaints of the tea not drawing well, or much worse than usual. In such instances, it seems reasonable to suppose that the water really was hard, having been merely brought to boil, and immediately poured upon the tea. Hence the expediency of allowing the Black Rock water to boil for some time previous to making tea with it.

From the experiments I have made upon the Black Rock water, I am of opinion that, after it has been boiled the requisite time mentioned, it is well adapted for every domestic and manufacturing purpose. It loses its nauseous flavour, and almost the whole of its earthy matter, and becomes perfectly well tasted. Certainly, boiled water is rather insipid for drinking, when compared with spring water, owing, it is conceived, to the separation of air. But this defect might be easily remedied:—If, for example, the boiled water, when cold, were made to ooze slowly through a filtering vessel, or passed through a large stone or a piece of wood pierced with a number of small holes, or even through a very fine sieve, the water by such exposure would absorb pure atmospheric air, lose its insipidity, and would afford to water-drinkers a pleasant and wholesome beverage.

(From the Philosophical Magazine.)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

SURGERY.

The following operation is of so singular a nature, and the remarks upon it of so particular a kind, that we shall present them in detail to our readers without any abridgment. The account is given by M. Richerand, in a memoir read at the Royal Academy of Sciences of the French Institute.

"I have (says the author of the paper,) the honour to present to the society an account of a surgical operation unparalleled in the annals of our art; an operation entirely novel, commanded, however, by necessity, and which has been justified by success.

"M. Michelleau, an officer of health, at Nemours, was afflicted for three years with a cancerous tumour upon the region of the heart, which was extirpated by a neighbouring surgeon, in the month of January. Upon the removal of the first dressings, a bloody fungus excrescence showed itself in the centre of the wound; which, notwithstanding that it was cauterized daily, still continued to increase with rapidity. In consequence, a second operation was tried, and the surgeon penetrated still deeper. Indeed, after having laid bare the ribs, the instrument was made to penetrate to the pleura. New funguses, however, still presented themselves, in spite of the repetition of the caustics; and the patient, wearied with so many ineffectual attempts at radical relief, came to Paris about the end of March, determined to subject himself to any expedient which might afford the most distant prospect of being freed from his dreadful malady, or give him the smallest hope of otherwise inevitable death.

"At this time an enormous fungus rose from the wound, from which brown and soft tumour, a sanious discharge issued, which was so fœtid, that it was impossible to remain near the patient for a quarter of an hour without changing the air of the apartment. But the pains were not now so great as formerly; neither were there colliquative sweats, nor diarrhœa; and although the patient was tormented by a protracted cough, he retained a robust appearance, and preserved a happy temperament of mind: his age was forty.

"Under these circumstances, the taking away of part of the ribs was determined upon, (*la résection des côtes,*) where it was

conceived the cancer must have originated. This undertaking having devolved to me, I forewarned the patient that it was most probable I should be obliged even to cut away a portion of the pleura; he, however, submitted without hesitation to the experiment, all the possibilities of which he was well able to appreciate.

"Every thing being thus arranged, I proceeded to the operation on the 31st of March, encouraged in this formidable enterprize by the friendly and active assistance of my colleague, Professor Dupuytren, as well as by others; the patient himself presenting me the instrument, and refusing to be held or assisted by others, and promising a display of firmness which was fully realized.

"I began by enlarging the wound, with a crucial incision; and I thus laid bare the sixth rib, which appeared irregularly enlarged, (*gonflée et rugueuse*,) about four inches in length. With a sheathed bistoury, the point of which I carried along both the upper and under margin of the rib, I divided the intercostal muscles, then with an extremely small saw I divided the rib at each end of its diseased part; I then detached this isolated portion of rib from the pleura, with a common spatula, which I found a business of unexpected facility, and which facility arose from the thickening of the pleura under the bone, as was proved by the event of the operation.

"The seventh rib was laid bare in the same manner, and to the same extent; but with much more difficulty, and not without a slight tearing. The pleura proved now to be considerably diseased, being thickened, and of a fungous prominence in the space occasioned by the removal of the two portions of ribs. The cancerous state of the part appeared so to extend itself above the sixth rib, that about eight square inches of the membrane seemed to be affected. What was to be done under these circumstances? Not to cut away the diseased portion of pleura, would be to leave incomplete an operation which, from its commencement hitherto, (during the space of about twenty minutes,) had promised the most favourable results. Each of my assistants was furnished with means for arresting the fearful hæmorrhage, which was to be expected at the moment that the intercostal arteries should be divided. I now cut away the diseased part of the pleura with scissars, with bent blades; and whether it were that this instrument rather presses than cuts, and tears the membranes which it divides, or whether it were on account of the retraction and lessened calibre of the vessels, occasioned by the previous cauterizations, not a drop of blood followed the incision: but at this moment the external air rushed in with vio-

lence, compressing the left lung, which, with the heart, enveloped by its pericardium, presented itself at the mouth of the wound. In order to moderate this rush of external air, and prevent the menaced suffocation consequent upon it, I clapped my left hand upon the wound, while, with my right, I hastened to apply a large compress upon it, spread over with cerate. The entrance of the air was thus obviated by this compress, which was sufficiently large not only to cover the wounded surface, but the whole side of the chest: over it I placed a large and thick pledget of lint; I put some other compresses above this, and secured the whole with a rolling bandage, applied moderately tight.

"For twelve hours after the operation the anxiety and difficult breathing were extreme. The patient passed a whole of the night in a sitting position. Towards the morning, sinapisms applied to the soles of the feet, and to the inside of the thighs, occasioned the respiration to be a little less difficult; and from this moment the pulse arose, and the vital powers seemed to be regenerated. An infusion of linden and violet flowers, *(fleurs de tilleuls et de violettes,)* impregnated with some drops of distilled orange flower, and sweetened with gum-arabic syrup, constituted the whole of his aliment; and thus passed three days with moderate fever and restlessness. It was ninety-six hours after the operation that the first dressing was removed; and it was now perceived that the pericardium and the lungs had formed an adherence with the whole contour of the four-sided opening, forming a kind of window to the heart; but this adhesion was fortunately not complete; and from the sixth to the twelfth day, in consequence of this incomplete adherence, there was a copious discharge of serous matter, which ran down the breast every time that the dressings were removed. In the space of twenty-four hours about half a pint of this matter was discharged. On the thirteenth day, this serosity had produced an inflammation on the surfaces; it now ceased to flow: and on the eighteenth day, the adhesion between the lungs and pericardium was complete. From this time the air ceased to find an entrance by the wound; the patient could lie on his side, and sleep and appetite were restored to their wonted integrity.

"The wound now contracted rapidly, and put on the most favourable appearance: on the one-and-twentieth day the cerate application was discontinued; and the wound was treated henceforth as of the most common and simple kind.

"The subject of the operation, who had already for several days made trial of his strength in the garden contiguous to his lodging, could not now resist his desire to go in a carriage

through the streets of Paris. In this excursion he occupied six hours, during which time he visited l'Ecole de Médecine, and witnessed the lodgment of the extricated portion of his ribs in the cabinet of that institution; not finding himself fatigued by this day's work, nothing could dissuade him from setting off from the capital on the twenty-seventh day from the operation, and of returning home, where he is now arrived; furnished with a piece of boiled leather, (*d'une plaque de cuir bouilli,*) in order to cover the cicatrix when that shall be completely formed.

" I did not fail to embrace the opportunity which the above extraordinary occurrence presented, of verifying the doctrine of the perfect insensibility of the heart and the pericardium; the individual in question was not at all sensible of a gentle application of the fingers to these organs. I may also add, that during life the pericardium in man is so transparent, that the heart may be perceived through it as if it was inclosed in a glass case: so much so, indeed, that we had thought it was the bare organ which we saw without any envelope. It is known that this is by no means the case after death; and in this point of view the pericardium may be compared to the membrane enveloping the eyes, which becomes thickened and opaque, and preventive of vision as death approaches.

" It is ascertained, too, that a large opening, even with loss of substance, made into the parieties of the thorax, is not necessarily followed by suffocation, effusion of blood, or fatal inflammation of organs into which the exterior air is thus permitted to penetrate; it appears, therefore, that in diseases of which, without an external opening, the individual must necessarily fall a victim—in a dropsy of the pericardium, for example, one might make an opening opposite the heart, which would not only permit the evacuation of the water in which this organ is plunged, but might prove a radical cure of the malady, if we could bring on an adhesive inflammation of surfaces in the same manner as is effected in the cure of hydrocele*. A similar operation would likewise seem to be indicated in order to lay open a lung that was partially affected, and to detach the diseased from the sound part, by ligatures. Such attempts will by some be condemned as hazardous enterprizes; but how many operations are there, now successfully performed, which but half a century since were considered impossibilities?

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* " M. Richerand begs that the Members of the Profession would send any Case that offers of hydrops pericardii, provided that the individual be not too enfeebled by age, or by the protraction of the malady; unless they would rather choose to undertake the proposed operation themselves."

"I will not, Gentlemen, (M. Richerand concludes) occupy any more of your time in reflections upon the above case; it is for those of my auditors who are particularly interested in the advancement of surgery to determine, whether I am too enthusiastic in my anticipations; and to judge whether the operation I have above described, is at all likely to contribute towards the progress of our science, or to the diminution of the ills by which mankind is surrounded."

The above case was read by M. Richerand before the Academy on the 27th of April: the following are the curious remarks of M. M. Deschamps et Percy upon it, some of which, particularly those about seeing into the heart, would not have very readily occurred to English pathologists or surgeons.

"For a very long time French surgery was without even pretension to rivalship; and even now this essential division of medicine is in every part of our country cultivated with so much ardour, and our sovereigns have, for the most part, taken such especial care to encourage this feeling among us, that the French are far from having lost their superiority over other nations in this particular. England, and England only, has come up to us in some respects; but without vanity it may be asserted, our efforts continue daily so to increase, that if others make progress, we continue to do the same; and that our rivals, too happy to equal us, can never promise themselves to reach the point of surpassing us.

It must be confessed, that at the present time there exists between the French and English Surgeons, (united, for the honour of the Profession and the good of mankind, by a reciprocal esteem, and mutual consideration,) a wrestling, so to say, of talents, of activity, and of success: and that this contention has had the effect of carrying the art, as if by gigantic strides, almost to perfection.

The English have effected astonishing cures, and by operations which, till lately, were unheard of. The French have done still more; sometimes by following and improving the hints of their neighbours, but oftener by tracing out for themselves new paths of adventure. Do they hear of a bold and successful operation performed by their foreign compeers? they immediately set about other operations, equally novel and equally bold; and in the midst of these conflicts of genius, and prosperous enterprizes, where we always find the advantage to rest with the French, the art becomes enriched with immense resources, and daily acquires an accession of actual power.

The operation which has been recently described by M. Richerand, is one of those brilliant achievements of French surgery, on which France has a right to pride herself. Mr.

Abernethy, let it be allowed, was the first to place a ligature on the external iliac, in an aneurism situated high up on the thigh; and let it be conceded, that this was the suggestion and act of a comprehensive and transcendent mind. But when we find our countryman and colleague laying open the breast, penetrating to the very heart, and tearing a disease up from its roots, which appeared to be impregnable to surgical aid, by its position under the ribs; it must be admitted that the enterprize in question is one not only displaying extraordinary surgical powers, but that it has in it something actually heroic; and we are left at a loss which most to admire, the conception of the plan, or the ability of its execution.

It must be remarked, that M. Richerand had to do with a patient equally determined to endure every thing, as his Surgeon was to undertake every thing; and that the former was equally convinced with the latter, that no chance remained for him but in the operation of escaping the most dreadful of deaths. Being himself a member of the faculty, he well knew how to judge of the prospects held out to him.

In so encouraging a state of things, assisted by the sagacious co-operation and invincible firmness of Professor Dupuytren, and being surrounded by such able men as M. Breschet, M. Richerand had an opportunity of giving full play to his talent, and of employing unchecked and unshackled that hand which had already proved so successful in many nice and difficult operations.

It will be recollected, that the cancerous tumor of M. Michelleau had been several times cut into, cauterized, &c.; but that after each operation, the disease was reproduced with redoubled force; this was occasioned by the depth of its roots, which seated under the ribs, defied every minor attempt at eradication.

In these several attempts the ribs had indeed been laid bare, and had even been affected by the cauterizing processes: it is possible that in the course of time, they might have exfoliated so as to have formed a complicated wound, which should have manifested a cancerous base. But would it not have been the height of imprudence and timidity to have waited the probabilities of such an event from nature, which art proved itself equal to the immediate accomplishment of, and in a manner still more effectual than could have possibly been expected in the natural order of things?

Thus those portions of two of the ribs which concealed the root of the fungus, (and through the interstices of which it continued to be invincibly renewed,) after having been isolated from their surrounding muscles and membranes, were

sawn through and removed. To the great surprise of the operator and assistants, there was no discharge of blood during the operation; so that the actual seat, extent, and bearings of the disease were made easily evident; and M. Richerand took out the whole of the diseased part, which formed a surface of about eight square inches, evidently of a carcinomatous structure.

Immediately upon this separation of the morbid from the sound part, the external air rushed into the thoracic cavity, and occasioned symptoms of suffocation, which, for a short time, gave rise to considerable alarm; but the external wound being shortly closed with cerate spread upon linen, and a gentle compression being employed, healthy respiration and its concomitants were soon restored.

This inconvenience was experienced in so slight a degree at the subsequent dressings, that the persons present had several opportunities of witnessing the appearance of the heart, which presented itself at the orifice of the wound; and its insensibility to the touch, as well as the transparency of its investing membrane (the pericardium), two particulars of interesting investigation, were demonstrated to the two first physiologists of the age.

It is earnestly to be wished that M. Michelleau may not experience any return of cancer*: he certainly deserves this future exemption from disease as a reward for his resignation and courage. But even should the complaint recur, the splendid operation of M. Richerand would not on that account cease to excite our admiration and applause. This operation (which, at the very least, may claim to be put on a level with the most conspicuous and important of those which the English Surgeons have lately essayed,) was neither one of unjustifiable hazard, nor of daring desperation. It was commanded by imperious necessity: it was planned and conducted by sagacity, reason, and prudence: genius presided at its execution; and it may be permitted us to say, that any cavilling objections to the enterprize, such as have been made, must necessarily argue either a total absence of candour, or a pitiable want of sense.

Far from this proceeding having been one of those which

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* It is much, however, to be feared, that these hopes will not be realized. We do not believe there is a case on record, in which true cancer, having an extensive seat and connexion, and an open surface, has ever been eradicated by an operation. The only ground of expectation that the disease may not return, would consist in the supposition that the malady in question was not of a genuine carcinomatous character.—Translat.

are merely to be admired for their incomparable nature, and are not likely to be repeated, M. Richerand has proposed the application of the same remedial process in other cases, and is willing to anticipate fortunate results in respect of the prevention and radical cure of till now infallibly fatal disorders, such as dropsy of the pericardium.

In this last case, after having ascertained its existence by its peculiar characteristics, it would be necessary to separate such portion of rib, or of ribs, as were immediately before the dropsical sac; then to open the pericardium, in order to give vent to the effused fluid; and afterwards to inject into the cavity such fluids as should be capable of exciting the adhesive inflammation.

It must be allowed, that the suggestion now made is somewhat bold*; and that to promise success it would, in the first instance at least, require such an operator as M. Richerand, and such a subject for operation as the surgeon of Nemours.

We might further anticipate the best consequences from the proposed extirpation by ligature, or excision of a portion of diseased lung, if for effecting either the one or the other nothing further be requisite than taking away so much of the ribs as is requisite to permit the introduction of the necessary instruments.

While, however, we would wish not to withhold the meed of due praise from our illustrious colleague, for thus proposing the extension of surgical resources, and while we should regret with him to see the operation under notice confined to a single case, and merely admired as a *rara avis;* we must not be inattentive to the sage counsel of Celsus, of confining our exertions within certain bounds. "*Ne quem salvare volueris occidisse videaris.*"

The case before us lastly shows that it is possible to open a window to the heart, and thus is the desideratum of the Greek philosopher supplied, who was desirous to witness in this organ the play of the passions: he forgot, however, that the heart, like the countenance, may show a face which shall be a false index of what is passing within.

Harvey once presented to Charles the Second a man, who, in consequence of a caries of the sternum and ribs, had the window in question upon his breast, over which was placed as a shutter, a large plate of silver. "Here then we see," said the English monarch, "the heart of a living man; and is my own formed after the same fashion?" "Precisely," replied the illustrious anatomist. "And Cromwell's, was

* So bold, that we fear the phlegm of John Bull will require actual demonstration to convince him of its practicability. — TRANSLAT.

his of the same construction?" "Most assuredly," rejoined Harvey. "And that flattering rascal, Dryden, should we find his heart of a similar appearance?" "Entirely so," continued Harvey. "So much the worse," added Charles, in a sorrowful tone, and taking out his purse, he presented it to the poor man, as a reward for the lesson he had given his king.

PHYSIOLOGY.

On the Absorbent Power of the Veins. By M. Mayer. From the Journal de Médecine.

"Dr. Mayer, Professor of Anatomy at Berne, has just published the results of a great number of experiments; by which he claims to be the first individual to have established the fact, that the veins are endowed with an absorbing power. We think it, however, due to the merits of one of our coadjutors, M. Majendie, to maintain, that he has been before hand with Mayer, not indeed in suggesting the doctrine in question, for that is older than either of the above physiologists, but in incontestably proving the truth of such doctrine. In a Memoir of the Institute, read in 1809, and published in the Bibliothèque Medicale of the same year; also, in the second volume of the Précis Elémentaire de Physiologie, will be found many experiments bearing upon this point: and if Dr. Mayer will take the trouble of turning to this last work, he will perceive, that not only is the absorbing faculty of the veins there proved to demonstration, but that the same faculty, as appertaining to the lymphatic vessels, is rendered very doubtful. He will there observe also, that the major part of his own experiments had been made with similar results by Majendie. But, although Mayer has been thus anticipated, the inferences which he draws from his several experiments, are certainly deserving commendation, and we shall not consider it a loss of time to pursue this interesting research.

M. Mayer has only given to the world the result of his experiments, which, in our opinion, is a less satisfactory manner of publishing than that of presenting his readers in detail the actual experiments themselves: the inferences ought to be left to the judgment of the reader, and not to be made dependent upon the *ipse dixit* of the experimenter.

The following is a summary account of these results, as they appear in the January Number of the Bibliothèque Universelle:—

1st. Animals are capable of supporting the injection of a considerable quantity of fluid into the lungs, without such injection proving fatal to life. Rabbits are capable of receiving in this way the quantity of four ounces and a half in twenty-

four hours; but it is necessary that these injections be made through an opening in the trachea: for if the liquid is thrown in by the larynx, symptoms of suffocation are induced, and the animal often dies. The suspension of respiration under these circumstances is the sole cause of death; a suspension produced by the irritation excited in the muscles of the larynx by the injection.

2d. The symptoms of suffocation are not severe when only water is thus thrown in; but they become much more so when heavy fluids, such as oil, are injected; as these fluids choke up (*engorge*) the pulmonary veins; and if chemical solutions are employed, the parenchyma of the lungs is injured, the oxidation of the blood is prevented, and inflammation and extravasation are the consequences.

3d. Fluids and injected solutions are absorbed in the lungs more or less promptly, according to their nature, and the degree of their concentration.

4th. This absorption is in general very considerable and conspicuous, but it is less so in animals that are very young than in older ones.

5th. The absorption is certainly effected through the medium of the pulmonary veins, for it takes place in the space of three minutes. The injected fluid is found also in the blood before it is seen in the chyle; it is perceived too in the left auricle and ventricle of the heart, prior to the least traces of its being observed in the right auricle: indeed, the absorption is effected even when a ligature is placed upon the thoracic duct.

6th. Absorption also takes place by the lymphatic vessels, but in a more tardy manner than by the veins.

7th. The veins of the stomach and intestines also exercise an absorbent faculty, but in a less marked degree.

8th. It is easy to demonstrate the existence in the blood of fluids absorbed by the veins; one may recognize without difficulty prussiate of potash, muriate of iron, arsenic, &c. in this manner. Prussiate of potash, injected into the lungs, is first found again in the arterial blood of the heart and arteries; and then, in the venous blood, if the injection be continued; sulphate or muriate of iron, mixed with the blood, produces a green or blue precipitate.

9th. These substances are also found in abundance both in the urine of the bladder and the kidnies; the prussiate of potash may be recognized in the urine as soon as seven minutes after the injection has been made into the lungs.

10th. Prussiate of potash is also deposited in considerable quantities in the liquor pericardii, in the secretion from the

pleura, and the peritoneum, in the synovia, under the skin, and in the milk.

11th. After the injection of the prussiate of potash, this substance may be recognized not only in the fluids, but likewise in several parts of the solids. Many of these parts will be rendered either green or white by the muriate of iron; the cellular membrane, for example, the fat, and the serous, as well as fibrous substances; all the muscular aponeuroses, the tendons, the lateral and interior ligaments, as, for example, the round ligament in the ileo-femoral articulation, and the cross ligaments of the knee, may be tinged with a blue or green hue by the solutions of iron; and the same takes place in the other fibrous parts of the frame, in the dura-mater, and the periosteum.

12th. The membranes peculiar to the arteries and veins, as well as the valves of the heart, may be thus made to receive a blue colour; and when the injection is not continued a sufficient length of time to effect these extensive changes, we find that the mitral valve of the left ventricle is the part to be first changed.

13th. The actual parenchymatous substance of the liver and spleen does not become coloured with blue by these processes; but the change is extended as far as the cellular membrane surrounding their vessels. The lungs, the heart, and the kidnies are affected through their substance.

14th. A blue colour is given to the salivary glands, the pancreas, and the mammæ.

15th. The colouring matter does not penetrate the bones or the marrow.

16th. The substances of the muscles, of the nerves, the brain, and the spinal marrow, are not changed in colour by the muriate of iron; these organs appear not to be endowed with either repulsive or exclusive power with respect to the contact of fluids which are not immediately concerned in their nutrition; and we seem, therefore, justified in the inference, that the opinions of those physiologists are unfounded in truth, at least that they are unsubstantiated by direct proof, which suppose that poisons display their deleterious power when applied to and acting upon the nervous organization *.

* We confess there is some obscurity to us in the original here, and we shall therefore subjoin the experimentalist's own words:—"Ces organes paroissent n'avoir *ni force repulsive ni exclusive au contact des fluides étrangers à leur nutrition.* On pourrait en conclure que les opinions de plusieurs physiologistes, qui disent que les poisons agissent mortellement quand ils sont portés sur les parties du système nerveux, ne sont pas bien fondées, et manquent de preuves directes."—Trans.

17th. These experiments, which may be regarded as throwing some light upon the functions of secretion, nutrition, and reproduction of parts, also instruct us as to the passage of liquids from the mother to the fœtus. When the prussiate of potash is thrown in, we are able to detect its presence in the liquor amnii, in the secretion from the chorion, in the vesicula umbilicalis, the liquid of the stomach, &c. and also in the placenta. When a fœtus, to the mother of which has been given the prussiate of potash, is immersed in a mixture of spirit of wine and muriate of iron, it changes to a blue colour. Thus is established to demonstration the fact of a direct passage of fluids from the mother to the fœtus; a fact which physiology had hitherto in vain endeavoured to ascertain. Fluids passing into the blood of the mother are deposited in the cellular tissue of the placenta, and are absorbed by the veins of the fœtus."

Note by the Editors of the Journal de Médecine:—

"With respect to the last positions of Dr. Mayer, we recommend him to peruse the article *generation* in Majendie's work. In that article several experiments are recorded, which seem to be quite satisfactory as to the passage of fluids from the mother to the fœtus, and the absorbent faculty of the placental veins."

PRACTICE OF MEDICINE.

Case of Acute Hydrocephalus in an Adult. Treated at the Hospital de la Charité, by A. Baudin. Communicated by M. Lerminier.

"Stephen Sabat, a labouring man, aged twenty-eight, was received on the 17th of June, 1818, into the Hospital. He was of a sanguine temperament, robust constitution, and stout make; and had a cough, attended with spitting, about five weeks prior to his admission. In the first instance his expectoration was slightly tinged with blood. For the three last days he had complained of most intense headach, which was accompanied by fever. These were the only marks of disease that appeared externally.

At the time of his entrance into the Hospital, the following symptoms were present: restlessness in lying in bed; the skin highly coloured; violent headach; flushed face; inflamed eyes; tongue whitish, without any bitter taste in the mouth; slight thirst; anorexia; costiveness; no pain in the abdomen; breathing free; cough and spitting very troublesome; the expectoration consisting of greenish, thick viscous floculæ, which swam in water; percussion on the right breast, giving a sound less clear and distinct than on the left, particularly on

the back part. Pulse not more than commonly frequent, but rather strong; heat (*halitueuse*).

The obscure sound produced by striking on the right side of the chest, together with the strength of the pulse, induced us to take two basins (palettes) of blood.—*Tis. pector. pot. gom.*

18th. Every thing appeared the same. Three (palettes) of blood. The blood taken did not at either time show a buffy coat, (couenne.)

19th. Pulse softer and not frequent, flushed appearance of the face, and eyes diminished; the coughing and expectoration not so frequent; headach, however, still very violent. The continuance of this symptom, connected with the appearance of the tongue, the want of appetite, and an uneasy sensation in the epigastrium, called, it was thought, for the administration of *eau minerale.* (*Emetique,* three grains, sulphate of soda, three drachms, dissolved in a pint of water.) This drink occasioned repeated vomitings of a bilious matter.

In the evening the pain in the head was found the same. *Mustard pediluvium.*

In the night symptoms of congestion about the head became still more urgent; tendency to drowsiness; slow, confused, and improper answers to questions put to him; considerable redness of the face and eyes; pulse the same.

20th. *Leeches upon the tract of each jugular vein; an enema, with eight grains of emetique; lemonade for drink; two sinapisms for the evening.*

On the 20th, the symptoms still became more urgent; an entire loss of sense; no further notice was taken of questions than by putting the hand to the fore part of the head, in order to point out the seat of pain. He passed his urine involuntarily. The injections immediately returned. After the action of the sinapisms, at about nine o'clock, *blood-letting in the foot; application of cold water to the head.* In the night the patient endeavoured to rise from his bed; he was forcibly prevented.

21st. The same, excepting that the pulse is a little slower, as the powers of life seem sinking, no precise indication seems to be easily made out. Derivatives, however, are still persisted in.

One grain of (emetique,) and two drachms of sulphate of soda, added to three glasses of laxative apozem; two blisters to the legs, one to the neck; ice to the head.

In the evening the pulse was a little quickened, probably in consequence of the excitation of the blisters. In the night two evacuations from the bowels.

22d. The same drowsiness, the pupils still natural, slight

dryness in the tongue, the cough and expectoration almost entirely suspended; pulse has returned to its first slowness. This last symptom, together with the little of fever, and the continuance of other signs of cerebral compression, induced us to conclude, that the disorder partook rather of the nature of acute hydrocephalus than of membranous inflammation, (*plutot hydrocephale aigue qu'arachnitis.*) The abdomen was struck, and the patient seemed agitated; but as he displayed the same signs of uneasiness when pressure was made upon the thighs or legs, we did not attach much consequence to the abdominal sensibility.

Laxative apozem, with the same additions; ice to the head. Two sinapisms for the evening. No urine has been passed to-day.

23d. The only fresh symptom worthy of notice, is an acceleration of the pulse: *bleeding in the feet, liem. vegetale, two sinapisms.*

24th. The frequency of the pulse continues; the pupils are now dilated.—*Blister upon the head; a camphorated antispasmodic drink, (inf. de till.) bis.*

Costive discharges from the anus during the day. In the evening the comatose state was increased; the patient now lay only in a supine position, and threw his arms about insensibly; the breathing was laborious, and sonorous, with the mouth open.

25th. In the morning a slight remission in the symptoms. (*The same drinks.*) In the evening increased redness in the face; strabismus; tongue dry; breathing quick and sonorous; pulse exceedingly frequent: general heat very high; carphalogia.

26th. The secretion of urine was discovered to be suspended. The distended bladder, in consequence of this retention, formed a round tumour above the pubes, as far up as the umbilicus. (*Introduce the catheter.*) A considerable flow of urine. The sound upon striking the chest is more obscure on the back of the right side, which it was not the day preceding.—*Fifteen leeches to this part; injection, with the addition of eight grains of (emetique). (Lim. veget. bis,) two sinapisms.*

In the evening the respiration still worse; great agony, and rattling of the throat, during the night. Died on the 27th at five in the morning.

In the whole course of the illness, neither partial nor general paralysis took place, nor the hydrencephalic scream, (*cri hydrencephalique*).

APPEARANCES ON DISSECTION.

Vessels of the meninges, and sinuses of the dura mater,

gorged with black blood; a slight serous effusion at the base of the cranium.

Upon opening into the two ventricles with caution, both cavities were found full of a clear, serous effusion, which separated the ventricles into their natural divisions, and the quantity of which was about two ounces in each cavity; the right ventricle contained, however, rather more than the left.

The lungs were free from adhesions; the right one (*hépatisé,*) in some points, and throughout its substance, studded with granulations; the left one was equally filled with these little firm, shining, greyish, semi-transparent substances, which seemed to escape, as it were, from the scalpel. These appearances of the lungs were in accord with the cough and expectoration with which the patient had been affected five weeks before he was admitted into the hospital; as well as the obscure sound which percussion occasioned on the right side.

The heart and abdominal viscera were healthy in their appearance; intestines distended with flatus; the urinary bladder was distended to more than its ordinary size, and contained a quantity of fœtid and deep coloured urine.

MISCELLANEOUS ARTICLES IN PATHOLOGY,

From the Journal de Médecine.

A Case of Effusion of Blood between the Dura Mater, and Tunica Arachnoides.

A WOMAN, aged 79 years, was received into the salpêtrière, affected with a *dementia senilis.* Some days after her reception into the infirmary, she was seized with an obstinate vomiting.

On the 28th of May, the day of her admission, every function of the body was exercised naturally. She repeatedly replied to the interrogatories that were put to her, that she felt no pain in any part; and upon pressure being made upon the several regions, no sign of uneasiness was displayed. The ideotic state in which this poor woman was, rendered it inexpedient, that she should be left entirely to her own guidance, more especially as a considerable alteration was perceived in her exterior. Indeed, on the following day it was observed that the whole of the right side of the body was attacked with an immobility, and almost total deprivation of sense. The pupil of the right eye was also fixed. In this condition, with a gradual increase of symptoms, were several days passed; a gangrenous eschar at length made its

appearance on the sacrum; the patient continued to sink, and died on the second of June, at seven in the evening.

DISSECTION.

Exteriorly the body appeared thin, and the external surface pale.

Examination of the head.—An effusion of blood, occupying almost the whole extent of the left side of the head, was found effused between the dura mater and arachnoid membrane. This effusion occupied the space of about seven inches in length, three in width, and was about six or eight lines in thickness. The blood, which seemed to be contained in a kind of pouch, was thick, and of a yellowish brown colour; it appeared to have been effused for some days before death. That part of the tunica arachnoides which corresponded with the effusion, was detached, as well as the subjacent portion of the pia-mater; but the brain in this part was concave: all its convolutions were effaced, and the whole of the hemisphere was reduced to about half its ordinary size; the actual substance, both of the cerebrum and cerebellum, was perfectly healthy.

Thorax.—The left lung contained a cancerous excrescence, (*dégenérescence cancéreuse,*) of about the size of a nut. Osseous incrustations appeared about the aorta.

Abdomen.—There were adhesions between the peritoneum and the intestines evidently of a long standing. The uterus was spread over with little fibrous bodies.

Occurrences similar to the above are, doubtless, infrequent. None of the authors who have written on apoplexy have detailed any cases exhibiting precisely such appearances*. Indeed, the intimate union which exists between the membranes in question, would seem almost to preclude such a separation of them. Cloquet, however, has made us acquainted with a case in which serous effusion occupied the same seat as did the blood in the present instance. It would be interesting to know the symptoms occasioned by such occurrence. In the case of our poor ideotic woman, the signs which presented themselves during life, were not such as to have marked the kind of morbid alteration of parts of which she was the subject and victim.

A Case of obliteration of the Brachial Artery.

The reader will, doubtless, call to mind, that in our last January Number were published some remarks on the want

* Dr. Esquirol found a case exactly similar, in an apoplectic subject, about six months since: he has preserved the part.—Note by the Editors of the Journal de Médecine.

of correspondence (*isochronisme,*) between the arterial pulsations in the two arms. Confining ourselves to reflections purely physiological, we in that paper took occasion to remark, that a complete and permanent isochronism could not have place between the pulse at the two wrists, without an organic lesion in the organs of circulation; we are now to relate as bearing upon this point, a case in which the brachial artery was obliterated.

A woman, aged 74, of the name of Picardet, having hitherto been in the enjoyment of perfect health, was suddenly seized with great oppression of spirits, which appeared to be connected with the gastric affection of which she complained, when admitted into the infirmary, on the 10th of May, 1818. It will not be necessary to enter into the particulars of her case, suffice it to say, that on the 11th of May the pulse at each wrist appeared to correspond.

On the 12th the right pulse beat 93 times in the minute; the left, now irregular and intermittent, gave but 75 beats during the same space of time.

On the 13th, even the right pulse was found irregular and unequal; but the left altogether defied numerical appreciation, indeed it was scarcely perceptible. The arm of this side was cold, livid, and very painful upon pressure.

The 14th. The same condition of the pulse on either side, but the fore and middle fingers are black, and apparently approaching to a gangrenous state.

On this day, at four in the afternoon, the patient died.

Upon opening the body, the heart was found unusually large; the aorta ossified beyond its primary division; the brachial artery on the left side was obliterated, and had become ligamentous, about the length of three inches, in its middle. It was dilated and conical immediately above the contracted part, and it was of its ordinary diameter, below the arteria profunda, after its obliteration. The right brachial artery was in a natural state.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

SOCIETIES.

ROYAL SOCIETY.—June 4.—A paper by Sir Everard Home was read, containing a description of the Delphinus Gangeticus; also another paper by Dr. Granville, giving an account of the production

of sulphuretted Azote in the abdomen by the decomposition of an albuminous dropsical fluid: and a third paper by John Williams, Esq. explaining the influence of Galvanism upon germination.

June 11.—A paper was read by Dr. Prout, describing a new acid principle prepared from the lithic or uric acid, which he denominates the *purpuric* acid.

Royal Institute of France—Academy of Sciences.—Prize proposed—*To determine the chemical changes which fruits undergo during maturation, and afterwards.*

For the solution of this question it will be necessary to examine with care the influence of the atmosphere which surrounds the fruits, and the alterations which they receive from it.

The essayist may confine his observations to fruits of different species, provided consequences general enough can be drawn from them.

The prize will be a gold medal of the value of 3000 fr. The term of competition is limited to the 1st January, 1819.

Royal Academy of Sciences at Paris.—March 9.—M. Geoffray-Saint-Hilaire presented a printed copy of a memoir, "On the Unity of Composition and Identity of the Substances composing the respiratory Organs in Animals with Vertebræ."

M. Chaptal, in the name of the committee to whom the subject was referred, gave an account of the memoirs that had been received in claim of the prize offered by the late M. Ravrio for the best method of protecting gilders from the fumes of the mercury employed in their art. The prize was adjudged to M. Darcet, *Verificateur Géneral* of the Mint.

The reading of a memoir by M. Beudant on the Varieties of Form in Crystals of the same Species, was begun.

March 30.—M. de Varennes delivered in a description of a species of incombustible cloth, which was referred to a committee.

M. Desfontaines made a report on M. Dellile's Memoir on the Persea.

The persea was a tree formerly cultivated in Egypt for the sake of its fruit, and of which Theophrastus, Dioscorides, Pliny, and other ancient naturalists have made mention. The former of these writers thus describes it. "There grows in Egypt a remarkable tree, called persea. In its leaves, flowers, and manner of growth, it resembles the pear tree; but differs from it in being evergreen. It produces fruit in abundance, which ripens about the time of the Etesian winds. When the fruit is intended to be kept, it is gathered before it is quite ripe. In this state it is of a greenish colour, and in form like an almond, or elongated pear: the pulp, which is soft, agreeable to the taste, and of easy digestion, incloses a stone like that of a plum, but smaller and harder. The wood of the persea is dense, and of a fine black colour, and is used for making tables and statues." Many modern naturalists have sought for this tree, but without success. M. de Sacy, in his translation of the Description of Egypt, by Abdallatif, an Arabian physician, proves that the name of *lebakh*, is the persea of Theophrastus. This tree has, for some ages past, disappeared from Lower

Egypt; but M. Dellile thinks that he has recognized it in the Xymenia Egyptiaca of Linnæus, of which he saw one specimen in a garden at Cairo, and two others in Upper Egypt. It is, however, common in Nubia and Abyssinia, where it is known by the name of *glig*. The committee think the opinion of M. Dellile to be, in all probability, well founded, and propose that his memoir should be inserted among the Sçavans étrangers.

April 6.—M. Biot presented a specimen of the glass employed by Mr. Stevenson in the Bell-rock light-house in Scotland. It is a red glass, the colour of which is occasioned by a thin, superficial coating of metallic oxide. The cost is considerable; and the reporter suggests, that hollow glasses, of any desired form, and filled with coloured fluids, like those which ornament the shop windows of druggists, would, in all probability, answer the end at a much less expense.

M. Geoffray-Saint-Hilaire continued the reading of his Memoir on the Pulmonary Organs.

April 27.—M. Richerand read a memoir on a successful operation, in which portions of three ribs were removed, and the pleura was wounded*.

For a delineation, description, and mode of using "Machell's Annular Saw" (to which were adjudged the gold medal of the first class, by the Society for the Encouragement of Arts, &c.) the price of which is advertised on the back of our present Number, see the London Medical and Physical Journal, for March 1815; and also the Edinburgh Medical and Surgical Journal, for July 1815. Several of the most distinguished Surgeons in the army, as well as the leading Medical Practitioners in the metropolis, have signed a certificate expressive of their warmest and unanimous approbation of its ingenuity and utility. For several remarkable and highly interesting cases of its successful employment by Mr. Astley Cooper, the reader is referred to the two parts of Surgical Essays recently published by Mr. C. and Mr. Travers.

At the Quarterly Court held last month, the following were the Officers of the Royal College of Surgeons chosen for the ensuing year:—

Royal College of Surgeons.—*The Court of Assistants.*—Master, *Thomas Keate, surgeon to the Queen and Prince Regent, Chelsea; Governors, *Sir David Dundas, Bart. sergeant-surgeon to the King, Richmond; *Thompson Forster, Southampton Street. *George Chandler, Stamford Street; John Heaviside, surgeon extraordinary to the King, George Street, Hanover Square; *Sir Wm. Blizard, Knight, Devonshire Square; *Henry Cline, Lincoln's Inn-fields; *William Norris, Old Jewry; *Sir Everard Home, Bart. sergeant-surgeon to the King, Sackville Street; John Adair Hawkins, Great Marlborough Street; Francis Knight, Saville Row; *Sir Ludford Harvey, Knight, Red Lion Square; *William Lynn, Parliament

* See the Department of Foreign Medical Science and Literature, for an account of this operation.

Street; John Abernethy, Bedford Row; William Lucas, Threadneedle Street; Astley P. Cooper, Spring Gardens; Anthony Carlisle, surgeon extraordinary to the Prince Regent, Soho Square; Thomas Chevalier, surgeon extra to the Prince Regent, South Audley Street; James Wilson, George Street, Hanover Square; John Gunning, surgeon extraordinary to the King, Lower Grosvenor Street; H. L. Thomas, Leicester Place.

Those marked thus * are Examiners.

LECTURES.

Dr. Davis will commence his Winter Lectures on the Theory and Practice of Midwifery, and on the Diseases of Women and Children, at his House, 29, George Street, Hanover Square, on Monday the 5th of October, at half-past Ten o'clock in the forenoon; and at Mr. Taunton's Theatre, Hatton Garden, on Tuesday, October the 6th, at Six o'clock in the evening.

Dr. P. Mere Latham and Dr. Southey will begin their Lectures on the Practice of Physic and the Materia Medica the first week in October, at the Middlesex Hospital.

Theatre of Anatomy.—Mr. Wilson and Mr. Bell will commence their Lectures on Anatomy on the 1st of October. Mr. Bell will give a Course of Lectures on Surgery. The Demonstrations will be given by Mr. Shaw.

Dr. George Gilbert Currey, Fellow of the Royal College of Physicians, and senior Physician to St. Thomas's Hospital, will commence his usual Course of Lectures on the Theory and Practice of Medicine and Materia Medica on Friday, October the 2d.

Dr. Clutterbuck will begin his Autumn Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Friday, October the 2d, at Ten o'clock in the morning.—Particulars may be had on inquiry at his house, No, 1, in the Crescent, New Bridge Street; or at the General Dispensary, Aldersgate Street.

Mr. Curtis, Aurist to His Royal Highness the Prince Regent, and Surgeon to the Royal Dispensary for the Diseases of the Ear, will commence his next Course of Lectures on the Anatomy, Physiology, and Pathology of the Ear, on Thursday, October the 1st, at the Royal Dispensary, Carlisle Street.—For particulars, apply to Mr. Curtis, at his own house, No. 2, Soho Square.—A Clinical Lecture will be given during the Course, on the most important Cases which occur at the Dispensary.

Medical School, St. Bartholomew's Hospital.—The following Courses of Lectures will be commenced at this Hospital on Thursday, October 1st:—On the Theory and Practice of Medicine, by Dr. Hue; on Anatomy and Physiology, by Mr. Abernethy; on the Theory and Practice of Surgery, by Mr. Abernethy; on Chemistry and Materia Medica, by Dr. Hue; on Midwifery, by Dr. Gooch; Practical Anatomy, with Demonstrations, by Mr. Stanley.—Further particulars may be obtained by application at the Apothecary's shop of the Hospital; or of Messrs. Anderson and Chase, Booksellers, 40, West Smithfield.

Mr. Guthrie, Deputy Inspector of Military Hospitals, will commence his Winter Course of Lectures on Surgery, on Monday the 5th of October, at five minutes past Eight in the evening, in the Waiting Room of the Royal Westminster Infirmary for Diseases of the Eye, Mary-le-bonne Street, Piccadilly. To be continued on Mondays, Wednesdays, and Fridays.—Two Courses will be delivered during the season.—In each Course the Principles of Surgery will be explained, and the practice resulting from them, with reference both to Domestic and Military Surgery, fully pointed out.—The Diseases of the Eye, although forming an Integral part of the Lectures on Surgery, will, for the convenience of illustration, be delivered every Thursday evening until completed.—The Operations referred to in the Lectures will be shown in each Course.—Medical Officers of the Navy, the Army, and the Ordnance, will be admitted gratis, on obtaining a recommendation from the heads of their respective departments, which must be presented to Mr. Guthrie between the hours of two and half-past four, at his house, No. 2, Berkeley Street, Berkeley Square.

A Course of Lectures and Demonstrations on Chemistry, to be delivered in the Laboratory of the Royal Institution, by William Thomas Brande, Fellow of the Royal Societies of London and Edinburgh, Professor of Chemistry in the Royal Institution, and of Chemistry and Materia Medica to the Apothecaries' Company. These Lectures commence on the first Tuesday in October, at Nine in the morning, and are continued every Tuesday, Thursday, and Saturday.—Two Courses are given during the season, which begins in October and terminates in June.—Further particulars may be obtained by applying to Mr. Brande or to Mr. Fincher, at the Royal Institution, 21, Albemarle Street.

St. George's Medical, Chemical, and Chirurgical Lectures.—These Courses will commence the first week of October next. 1. On the Laws of the Animal Economy and the Practice of Physic, with Pathological Demonstrations occasionally. By George Pearson, M.D. F.R.S. senior Physician to St. George's Hospital, &c.—2. On Chemistry, in which Medical Jurisprudence will be introduced as a part of the Course. By W. T. Brande, Sec. R. S. Professor of Chemistry in the Royal Institution.—3. On the Theory and Practice of Surgery. By B. C. Brodie, F.R.S., Assistant Surgeon of St. George's Hospital, &c.—4. On Therapeutics, with the Materia Medica. By George Pearson, M.D. F.R.S., &c.—5. Surgical Lectures will be given to the Pupils of St. George's Hospital, gratuitously, by Sir Everard Home, Bart.

We feel happy to announce to Gentlemen of the Profession, that a Medical, Chemical, and Philosophical Library, under the management of Mr. T. Burgess, is just established at the west end of the town, No. 55, Great Windmill Street; and we have no doubt will prove a valuable accommodation to the faculty, as all works relating to Medicine, Chemistry, and Science in general, may be obtained by the single volume, month, quarter, or year. An accommodation of

this kind has long been much required; particularly by Gentlemen who remain in town but a short time; we therefore trust it will meet with encouragement.

LITERARY NOTICES.

In the press, Underwood's Catalogue of Medical Books for 1818-19, with a List of the Lectures delivered in London. — Also a new edition of Dr. A. P. Wilson Philips' work on the Vital Functions. Octavo.

In the press, the second Edition of the Elements of Conchology, according to the Linnæan System, illustrated by twenty-eight plates drawn from nature, by the Rev. E. J. Burrow, A.M. F.R.S. F.L.S., Mem. Geol. Soc.

Mr. Johnson, author of the Influence of Tropical Climates on European Constitutions, &c. has in the press, and will in a few days publish, in one volume octavo, of 130 pages, "The Influence of Civic Life, Sedentary Habits, and Intellectual Refinement, on Human Health and Human Happiness; including an Estimate of the Balance of Enjoyment and Suffering in the different Gradations of Society."

GOUT. — We understand that a small work on Gout, from the pen of Mr. Johnson, author of the "Influence of Tropical Climates on European Constitutions," is in the press, and purposes to contain a condensed and popular view of all that is now known on the Nature, Cure, and Prevention of this formidable Disease, as collected from the sentiments of the best Writers on the subject, both British and Continental, interwoven with Practical Observations and Strictures on certain fashionable remedies.

Mr. Stanley, Assistant-Surgeon and Demonstrator of Anatomy at St. Bartholomew's Hospital, is preparing for publication, in October next, a Manual of Practical Anatomy, for the Use of Students engaged in Dissections.

Messrs. Anderson and Chase are preparing for publication, on the 1st of October next, their Annual Catalogue of new and second-hand Medical Books, with a complete List of the Lectures delivered in London, their terms, hours of attendance, &c.

In a few days will be published, in 8vo. an Inquiry into the Influence of Situation on Pulmonary Consumption, and on the Duration of Life: illustrated by Statistical Reports. By John G. Mansford, Member of the Royal College of Surgeons of London.

In a few days will be published, Practical Instructions on the Treatment of Apparent Death, arising from Noxious Vapours, Drowning, extreme Heat or Cold, Infants apparently Still-born, Persons Poisoned, and on the Preventive Treatment of Persons Bitten by Mad-Dogs, &c. With Observations on these Accidents, and on the Signs which distinguish Actual Death from that which is only Apparent. Translated from the French of Antoine Portal, Professor of Medicine, Anatomy, &c.—This work was published by order of the French Government.

MEDICAL BIOGRAPHY. — To the second Edition of "Memoirs, Biographical, Critical, and Literary, of the most eminent living Phy-

sicians and Surgeons of Great Britain," the author has made the very important addition of an Extemporaneous Pharmacopœia; or, Choice Collection of the Prescriptions of celebrated Practitioners, arranged under the heads of Mixtures, Draughts, Pills, Boluses, Lotions, &c.; and the Diseases for which they were given. Biographical Sketches of a few able Physicians and Surgeons are also added.

To Medical Students.—Mr. James Johnson, author of the Influence of Tropical Climates on European Constitutions, and Editor of the Medico-Chirurgical Journal, will admit, during the ensuing winter, into his house, No. 1, Albany Court Yard, Piccadilly, two Pupils, for the purpose of superintending their Studies, and initiating them in the pursuits of British and Foreign Medical and Surgical Literature. The terms and plan will be found extremely advantageous to the Student in a medical, moral, and financial point of view.

Account of the Complete School of Physic in Ireland, for the Instruction of Students in Medicine, Surgery, and Pharmacy.

FOUNDATION.

In 1704, Sir Patrick Dunn instituted, in his lifetime, two Professorships in Dublin, viz. "one of Osteology, Bandages, and Operations of Surgery, and one of Ancient and Modern Materia Medica, and Pharmacy." Sir P. Dunn further directed by his will in 1711, that, if his funds were sufficient, "there should be Lectures publicly read on the Anatomy of the bodies of Men, or the bodies of Animals—on Chirurgery and Midwifery — on Botany, and the Dissections of Plants." He also ordered, that the professorships on these several subjects, should be bestowed according to the merits of the Candidates, to be ascertained by an examination on three several days, two hours each day. A king's Professor of the Theory and Practice of Physic, with corporate powers of holding and letting lands, was instituted by George the First.

An act was passed in the 21st year of George the Second, by which the king's Professorship of Physic, and the Professorship of Surgery and Midwifery, and that of Materia Medica, and Pharmacy, instituted by Sir Patrick Dunn, were incorporated and established by law. Before this period also, Lectureships existed in Trinity College, on Anatomy and Surgery, Chemistry, and Botany.

Throughout the 21st George the Second, and the will of Sir Patrick Dunn, recited in it, the different Lectures are always mentioned as being intended for the "instruction of Students of Medicine, Surgery, and Pharmacy;" and from thence arose the title of the Complete School of Physic, adopted in the subsequent acts, viz. the 25th, 31st, and 40th of his present Majesty, in which the 21st George the Second is constantly recognised as the foundation of the school, and as being still in force, except "as relates to the number of professors, the electors, and the mode of election, the tenure and salaries of the said professors, and the times and manner of lecturing."

STUDENTS.

The several Students in Physic are matriculated in the University, for which they pay five shillings; but such Students, unless they shall think proper, are not obliged to attend to the academical duties of the University. The several Lecturers, when they have delivered one half of their courses, return to the senior Lecturer of Trinity College a list of such pupils as shall have attended them during such part of their courses.

PROFESSORS.

There are six Professorships. Those of Anatomy, and Surgery, of Chemistry, and of Botany, are on the foundation of Trinity College, and are called the University Professorships; those of the Institutes of Medicine, of the Practice of Medicine, and of Materia Medica, and Pharmacy, are on Sir Patrick Dunn's foundation, and are named King's Professorships. Provision is also made for the addition of a King's Professor of Midwifery, as soon as Sir Patrick Dunn's funds shall permit.

" The King's Professorships are open to persons of ALL nations, professing their faith in Christ, and the Professorships of the University to Protestants of ALL nations," and for both, it is required either to have taken medical degrees in some University, or to have obtained a license to practice from the College of Physicians, in consequence of a Testimonium under the seal of Trinity College. Immediately before the election of any Professor, the electors are sworn to vote without " favour, partiality, or prejudice;" and immediately on being declared elected, the Professor is sworn to perform " his duties to the best of his skill and judgment." The electors of the King's Professors are the Provost, and the Professor of Physic of the University, with three Physicians, chosen by ballot from their own body, by the College of Physicians. The University Professors are elected by the Provost, and senior Fellows of Trinity College. Each Professor is chosen for seven years, but may be continued, or may be re-elected.

In addition to the fees derived from the Medical Students, the King's Professors receive a salary from Sir P. Dunn's estate, and the University Professors are paid by the Students of Arts, in Trinity College, for the public or collegiate Course of Lectures.

LECTURES, AND OTHER MEANS OF INSTRUCTION.

The University Professors deliver annually a Public Course of Twelve Lectures on their respective subjects.

Lectures on the following subjects, are delivered from the first Monday in November, until the end of the succeeding April, viz. on Anatomy, and Surgery, and on Chemistry in Trinity College. On the Institutes of Medicine, on the Practice of Medicine, and on Materia Medica, and Pharmacy, in Sir P. Dunn's Hospital. The Lectures on Botany commence on the first Monday in May, in Trinity College, and continue until the end of July.—Terms for each of these Courses of Lectures, Four Guineas.

Clinical Lectures are given on the cases of the patients in the

Hospital, at least two days in each week of every session. This duty is taken for three months by the professors, alternately, or in such other order as shall be agreed upon amongst them. Terms of each Course, Three Guineas.

Lectures on Comparative Anatomy, Physiology, and Pathology, are given by the Professor of Anatomy and Surgery, twice a week during the session, without additional expense to those who pay for the Lectures on Anatomy and Surgery.—To other Pupils, the Terms for these Lectures are Two Guineas.

Anatomical Demonstrations are given daily, from the beginning of the session, until April, by the Demonstrator of Anatomy, in Trinity College. The Students are superintended in their Dissections, and subjects are provided for the Muscles, Blood Vessels, and Nerves. A private room is allotted to the use of Practitioners who may wish to improve their knowledge of Anatomy.—Terms for Dissections, Subjects, and Demonstration, Six Guineas; for the Demonstrations alone, Four Guineas.

Students who wish to be instructed in the performance of Surgical Operations on the dead Body, may be superintended, and have the necessary number of Subjects provided them.—Terms for which, Five Guineas.

Toward the end of the session, a Course of Lectures is given on the Diseases of the Skin, by the Professor of Anatomy and Surgery; and one on the Diseases of the Eye, by the Demonstrator of Anatomy.—Terms for each of these Courses, One Guinea.

At the Chemical Laboratory, operating Pupils are received and instructed in the details of Chemical and Pharmaceutical Processes.—Terms for such instruction are Six Guineas.

Students in Botany have access to the Botanic Garden, which is in the immediate vicinity of Dublin, and have the opportunity of taking frequent excursions with the Professor of Botany and his Assistant, to the mountains, and sea-coast adjacent to the city.

Botanical Demonstrations are daily given by the Professor's Assistant in the Garden during the season.—Terms of which, One Guinea.

A Course of Lectures on Mineralogy, is delivered by the Professor of Natural History, in Trinity College, to which those who have their names on the books of the University are admitted gratis.

The Museum of Trinity College, to which Students have admission two days in the week, contains a Collection of Minerals, systematically arranged, with references to a printed catalogue.

Pupils are taken by the Apothecary of Sir Patrick Dunn's Hospital, and instructed in the Practice of Pharmacy.—Terms for which, during Three Months, Two Guineas.

A Medical Society holds Weekly Meetings in Trinity College, for the purpose of discussing Subjects connected with Medicine, Surgery, or Pharmacy. A Medical Circulating Library belongs to the Members.—Terms of admission to the Society, with the use of the Library, One Pound.

Medical Officers of the Army and Navy are permitted to attend the Lectures on Anatomy and Surgery, in Trinity College, without fee.

HOSPITAL.

This is chiefly supported by the rents of Sir P. Dunn's estates, and partly by private contribution. The Board of Governors consist of the Visitors of the College of Physicians, the President, Vice-President, and Censors of the same, the Provost of Trinity College, and twelve Subscribers; but "no Physician or Surgeon" of the Hospital is eligible to be a Governor. The house is intended to hold one hundred and thirty patients, of whom thirty are selected for Instruction and Lectures, by the Clinical Professor for the time: the rest are placed under the care of a physician appointed by the Governors.

The cases of the Clinical Patients in the Hospital are recorded. Every opportunity is also taken to examine the bodies of patients that die; the morbid appearances are explained to the Students, and preserved in the Pathological Collection of the School.

At present, all Pupils are permitted to attend the entire practice of the Hospital during a year, for Three Guineas. Formerly, this privilege was extended to those only who had studied at least two years in arts, in the University of Dublin, Oxford, or Cambridge. All other Pupils paid Twenty Guineas.

LIBRARY.

A large collection of Medical Books, bequeathed by Sir P. Dunn, is appropriated to the use of the Students, and provision is made for purchasing books in proportion as the funds increase. A Librarian is appointed annually by the College of Physicians, with a salary of seventy pounds per annum. He furnishes the necessary fuel for the Library, and Medical Lecture Room, and discharges such duties as shall be prescribed to him by the College of Physicians.

DEGREES.

The Students who do not graduate in Arts, are permitted, at the end of three years from the date of their matriculation, to undergo an examination before the six Professors of the School, in their respective departments, on producing to the Board of Trinity College certificates of diligent and regular attendance on Anatomy, Surgery, Chemistry, Botany, Institutes of Medicine, Practice of Medicine, Materia Medica, and Pharmacy, the Clinical Lectures and Practice of Sir Patrick Dunn's Hospital. They likewise write a thesis in Latin. If found qualified by the examination, they publish the thesis, perform the academical exercises for the degree of Doctor of Medicine, and receive the following Testimonium from the Board of Trinity College.

"Omnibus ad quos præsentes literæ pervenerint salutem." "Nos præpositus et Socii Seniores Collegii Sacro Sanctæ et individuæ Trinitatis, juxta Dublin, testamur A. B. quamdiu apud nos commoratus est, sedulam operam Medicinæ navasse, Examinationes solitas coram Sex Medicinæ Professoribus feliciter sustinuisse, cæteraque excercitia necessaria præstitisse, his adducti judicamus eum habilem ac idoneum esse, qui exerceat artem Medicinæ quatenus leges statutaque regni permittunt; in cujus rei Testimonium, manus et Sigillum quo in his utimur, apposuimus.—Anno Domini, &c. &c."

The Students who go through a collegiate Course, on producing

certificates of their strict attendance on the Lectures of the Professors in the School of Physic, on the Clinical Lectures, and the Hospital, are, three years after having graduated as Bachelor of Arts, admitted to an examination before the regius Professor of Physic, and the Professors of Anatomy and Surgery, Chemistry and Botany, in Trinity College. On being approved, and performing the usual academical exercises, they take the degree of Bachelor of Medicine. Upon sufficient standing, publishing a thesis, passing a second examination before the University Professors, and performing the necessary acts, the full degree of Doctor in Medicine is conferred. These rank with the degree of Bachelor and Doctor of Medicine, obtained in the Universities of Oxford and Cambridge.

As qualifications previous to examination for the testimonium, the certificates of the Professors in Edinburgh are admitted for any three of the Courses required, with the exception of the Clinical Lectures, which must have been attended in the School of Physic in Ireland.

Certificates of attendance on the Professors in the School of Physic in Ireland, are received, as giving standing in other Universities, and as qualifications for Medical Officers in the army, navy, and East India service. And certificates of attendance on the Anatomical and Surgical Lectures in Trinity College, are also admitted in the different Colleges of Surgeons.

[The following has been sent us for insertion in the Repository. We suppose, from the manner in which it has been transmitted (in a printed form,) that it is intended also for another Journal, and we have thought it proper to say thus much, lest we might be considered chargeable with illiberal conduct towards such Journal.—Edit.]

For the Medical Repository and Review.

Practical Remarks on the Utility of Enemas, and on an improved Method of administering them. By T. Machell, Member of the Royal College of Surgeons, and Surgeon to the late Truss Society for the gratuitous Cure of Ruptures, under the patronage of His Royal Highness the Duke of Sussex.

It is a fact too well known to require any elucidation, that the medical practice of our professional brethren on the opposite side of the English Channel, is much more simple and mild than the mode of treatment usually adopted, under similar circumstances, by British practitioners. I will not stop to inquire into their relative superiority and success; nor whether the measures which are deemed expedient and salutary in our insular situation, would be generally applicable to the natives of France. It is probable, however, that, in presuming to censure and ridicule what may appear to us very inert proceedings, we have taken too confined a view of the subject. For, in consequence of their more abstemious habits, added to their more temperate climate, the inhabitants are less plethoric, and less prone to diseases of high action, than we are: and, consequently, the same energetic measures, which are imperiously called for in the severe

form of inflammatory aliments amongst us, would be ill adapted to the less sanguine and more relaxed constitution of our continental neighbours. I believe, too, it will scarcely be disputed, by those who are competent to form a correct judgment of their medical topography, that the Gallic nation is, upon the whole, a more healthy race than the sons of Albion. One, among the various causes usually assigned in explanation of this greater freedom from disease, seems to me to have been too much overlooked; because, by resorting to the prophylactic means they adopt, I am inclined to believe that one grand source of morbid affections would at least be greatly lessened, if not altogether removed. I allude to the studious attention which is paid by the French of both sexes to the preservation of the alimentary canal in a regularly open state, by the constant and *almost daily* exhibition of domestic glysters. We have not now to learn, that many anomalous symptoms, and some very formidable maladies, may be fairly imputed to the bowels being suffered to remain habitually constipated. Nor is it necessary for me to enlarge upon the utility of purgatives in various diseases; a subject which has been so ably treated by Dr. Hamilton, of Edinburgh; who has, by the most legitimate reasoning, founded upon incontrovertible facts, shown the importance in the prevention and cure of diseases which attaches to the removal of accumulated fæces, and the too long detention of indigestible colluvies, and vitiated intestinal secretions. So general has been the influence of his labours upon this interesting topic, that the free use of remedies of this description, *under actual disease*, constitutes a prominent feature of the present system of medical practice.

Such, however, is the almost unconquerable aversion which many individuals (the inactive state of whose bowels requires some assistance,) entertain to the frequent swallowing of aperient medicines, that, rather than submit to the irksome and nauseating draught, they prefer subjecting themselves to all the inconvenience and dangers even of habitual costiveness. Independently, indeed, of this objection, the frequent introduction of cathartics ingredients, (which, by repetition, lose much of their efficacy,) into the stomach, that has often no share in the existing torpor, cannot be altogether free from injurious effects. This organ being excited into unnatural movements, acquires, by degrees, a morbid irritability; and, becoming impatient of the stimulus of food, propels it forward into the duodenum, before it has undergone the changes which that important viscus is designed to elaborate upon the ingesta. In this manner it is probable that the stomach, by this repeated excitement, is made gradually to participate in that train of diseased action which primarily was confined exclusively to the lower portion of the alimentary tube. In the pregnant state, all kinds almost of opening medicines which are attempted to be given by the mouth are commonly productive of great distress, and are soon rejected by the stomach; the repetition of which tends still more to increase the irritability of that organ; whilst, on the contrary, an appropriate enema not only answers the purpose of preserving the bowels regular, but, by giving a peristaltic motion to their lower ex-

tremity, serves to counteract the disposition to the inverted action of the superior portion of the alimentary tube. Nor is this all; for, by removing accumulated and hardened fœces, which purgatives do not always accomplish, one grand cause of tenesmus, and pain in the abdomen, dysuria, hæmorrhoids, and even abortion, is obviated.

By the frequent employment of cathartics, either in a liquid or pilular form, the liver, the pancreas, and the glands of the mucus membrane of the intestines, are probably, directly or indirectly, through the intervention of their excretory ducts, kept in a constant state of fretfulness. To this may be added, that, in the majority of instances, abdominal accumulation takes place in the large, and but seldom in the small, intestines. On this account, it is clear that enemas, properly administered, by applying themselves immediately to the seat of the disease, afford the most likely means of relief; and without too the risk of entailing mischief upon the parts to which I have just adverted. These considerations, added to others of great weight which might be adduced, constitute a strong ground for preferring the French, before the prevailing English mode of practice. In short, few other arguments need be advanced, I presume, to convince the public of the advantages that would result from the adoption of the continental usage, could a more convenient apparatus be procured for effecting the desired purpose. When once the comfort and benefit were fully experienced, every difficulty arising from the novelty of the measure would speedily vanish, and the practice would become as general as it would be found useful.

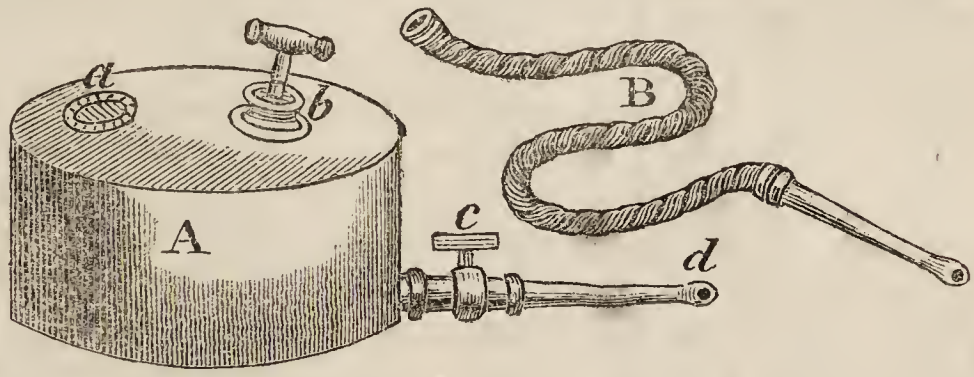
In the discharge of my professional duties, I have, in common with the rest of my brethren, had frequent cause to lament the inefficacy, and, in many instances, the impracticability of the means commonly resorted to for the exhibition of an enema, in cases where the relief, nay, the very existence of my patient, was at stake. A proper pipe is not always at hand, and, even when it can be commanded, there is oftentimes as great an obstacle in procuring a bladder fit for the purpose: when even both are obtained, and made ready for use, the latter not unfrequently becomes lacerated and unserviceable at a moment when the patient has, not without much persuasion, been prevailed upon to submit to the operation, from an assurance only of the great benefit which it would afford. Such an accident has repeatedly occurred to my observation; and, when it did happen, proved equally distressing to the patient, and mortifying and embarrassing to the surgeon; I may add, that the large pewter syringe which has been made to supersede the use of the common fistula armata, or armed injection pipe, is by no means an easy, agreeable, or efficient mode of administering domestic glysters.

In the hope of being able to obviate these difficulties, and to render a practice which challenges so many advantages more convenient and applicable at all times, and on every emergency, I thought I could not devote my time and study better than in contriving a manageable apparatus for this express purpose. After a great variety of experiments and alterations, I have at length the honour to submit to the approbation of my professional brethren an apparatus which, I trust,

will be found to embrace every requisite which can be desired in an instrument of this description. I have not only tried it myself with perfect satisfaction, but have the liberty also to refer for a confirmation of its utility, and for the ease and effect with which it can be used, to many of the most eminent Physicians and Surgeons in this metropolis, under whose direction it has been most successfully employed.

4, *Great Ryder Street, St. James's Square,*
August, 1818.

DELINEATION, DESCRIPTION, AND METHOD OF USING THE SELF-ACTING PATENT INJECTING OR GLYSTER APPARATUS.



The capital A represents the metallic case, or receiver, made of a convenient shape, and of an ordinary size, capable of containing a pint of fluid. It has two perforations on the upper part; the one marked *a*, through which the prepared injection is to be introduced; the other aperture *b*, into which the air, or forcing syringe, is fitted; *c* denotes a stop-cock, which is connected on one side with the receiver A, and on the other with the ivory pipe, *d*.

The following is the method of preparing the apparatus for use:—

First, take out the metallic screw made to close the aperture *a*, and introduce, through its circular opening, the requisite quantity of prepared injection, of a proper degree of heat. The stopper must be again replaced, and firmly screwed down, so as effectually to prevent the escape of air. Then, taking hold of the handle of the forcing syringe at *b*, the piston must be moved up and down, in pretty rapid succession, to its full extent, until a resistance is opposed to its descent; which will require about thirty strokes of the piston.

In this state, the apparatus being charged with the injection, and with condensed air, may be considered fit for use: previously, however, the handle of the forcing syringe may, if found inconvenient, be unscrewed and removed out of the way.

The ivory pipe is to be introduced in the usual manner; when, by gently turning more or less the stop-cock, the contents will, by the pressure of the atmospheric air accumulated on the surface of the liquid, be projected through the ivory conducting-pipe, with as much force and as large a stream as the judgment of the operator, or the feelings of the patient, may suggest.

Substituting the flexible tube, B, in lieu of the ivory pipe *d*, the patient, by placing himself and the apparatus in a convenient situation, will be enabled, with the greatest facility and effect, to administer a glyster to himself, without the presence and aid of a second person.

A METEOROLOGICAL TABLE,

From the 21st of JULY to the 20th of AUGUST, 1818,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Barometer. Min.		Therm. Max	Therm. Min.	Rain Gauge.	Winds.	Weather.
21	29	60	29	56	75	58	02	SW..	1 Sun.. and Showers.
22	29	72	29	69	76	60		SW..	1 Sun..
23	29	74	29	68	80	60		SW.S.	1 Sun...
24	29	49	29	49	85	53		SE.SW..	1 Sun...
25	29	53	29	51	80	63	02	SW..	1 Sun... 3 Cloud.. 4 Rain.
26	29	55	29	53	79	58	02	SW..	1 Sun. and Showers.
27	29	81	29	72	66	47	02	WNW.	134 Cloud.. 2 Sun.
28	29	90	29	84	74	55		W..	1 Sun.... 2 Sun.. 4 Cloud..
29	29	76	29	70	76	62		SW..	1 Cloud., 2 Sun.
30	29	79	29	73	74	57	02	SW..	1 Cloud.. 2 Sun.... 4 Rain.
31	29	62	29	59	71	56	17	S.W.	1 Cloud..3 Sun..4 St..& R..
1	29	85	29	83	69	46	08	NW.NE.	1 Rain. 4 Starl...
2	29	90	29	80	69	44		NW.NE.	1 Sun...
3	29	76	29	75	75	56		SE.S.	124 Cloud.. 3 Sun...
4	29	77	29	73	77	54	01	SE.SW.	1 Rain. 2 Sun...
5	29	74	29	69	79	60		SE.SW..	1 Sun.... 4 Cloud..
6	29	81	29	72	72	46		WNW.	14 Cloud.. 23 Sun...
7	29	77	29	76	71	45		W..	1 Sun..
8	29	77	29	72	72	46	05	NE.	1 Sun... 3 Rain.
9	29	74	29	72	71	53	05	E.N.	1 Mist...2Sun.3Rain.4Cl...
10	29	92	29	89	65	46		NE.N.	1 Cloud... 2 Sun.. 4 Moon...
11	29	96	29	94	67	47		NE.	1 Cloud.. 2 Sun.. 4 Moon...
12	29	94	29	94	70	49		ENE.	14 Cloud.. 23 Sun.
13	29	94	29	92	72	48		NE.	1 Sun..
14	29	92	29	88	68	50		NW.NE.	13 Cloud.. 2 Sun. 4 Moon..
15	29	88	29	83	66	49		N.	134 Cloud.. 2 Sun.
16	29	83	29	78	69	47		N.	1 Cloud.. 2 Sun.. 4 Moon..
17	29	77	29	74	70	52	24	NW..	1 Cloud.. 3 Sun. 4 Rain...
18	29	80	29	75	62	46	02	NE.	1 Rain 2 Cloud...
19	29	79	29	77	65	47		NW..	1 Sun..
20	29	77	29	77	66	50		NW..	134 Cloud.. 2 Sun..

The quantity of rain during the month of July was 1 inch and 92-100ths.

The weather has been hot and dry nearly the whole of this period. On the 5th instant a thermometer hung against a wall facing the south was raised to 126°.

Observations on Diseases at Richmond.

The disorders under treatment were Amenorrhœa, Anasarca, Asthma, Cholera morbus, Cynanche tonsillaris, Diarrhœa, Dyspepsia, Dysuria, Febris continua, Febris ephemera, Gastrodynia, Hæmoptoë, Hæmorrhois, Hysteria, Menorrhagia, Morbi biliosi, Obstipatio, Phlegmon, Phthisis pulmonalis, Rheumatismus acutus, Scabies, Tic douloureux, Urticaria.

THE METEOROLOGICAL JOURNAL,

From the 20th of JULY to the 19th of AUGUST, Inclusive.

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.			Barom.			De Luc's Hygrom. Dry.		Damp.		Winds.		Atmo. Variation.		
20			75	80	65	29	99	29 93			10	7	E	E	Fine	—	—
21			58	75	61	29	90	29 95			13	13	E	NE	Fine	Clo.	—
22			67	75	62	30	00	30 08			10	10	W	SW	Fine	—	—
23			69	81	68	29	97	29 95			3	5	WNW	NE	Fine	—	—
24			75	84	68	29	82	29 77			3	5	SSE	S	Fine	—	Ltg.r
25	☽	,15	73	80	67	29	90	29 75			7	12	SE	S	Fine	—	Clo.
26			70	80	63	29	95	29 93			10	12	S	SW	Fine	—	Rain
27		,07	68	81	60	29	81	30 05			15	13	SW	NW	Fine	Rain	Clo.
28		,04	63	78	60	29	91	30 22			5	3	SW	SW	Fine	—	—
29			65	76	62	30	20	30 16			7	7	SW	SW	Clo.	Fine	Clo.
30			67	74	63	30	10	30 07			7	5	W	SW	Clo.	Fine	—
31		,03	67	75	61	29	96	29 97			8	10	SSW	SW	Clo.	Fine	Sho.
1			65	70	58	30	00	30 07			12	15	NW	NW	Clo.	Fine	—
2	☾		60	70	55	30	03	30 11			10	10	NNE	SE	Fine	—	—
3			58	68	55	30	08	30 06			9	7	SE	SE	Fine	—	—
4			60	75	60	30	08	30 07		0	5	0	ESE	SE	Fo	Fine	—
5			67	80	69	30	06	30 01	0	3	0	0	S	SSW	Fine	—	—
6			76	84	60	30	03	30 06	0		0	5	NE	NNE	Fine	—	Ltg.
7			69	79	62	30	06	30 05			8	9	NW	W	Fine	—	—
8			69	78	60	30	00	30 02			10	9	SSW	SW	Clo.	Fine	—
9	☾	,02	68	75	59	29	95	29 90			9	11	SW	ENE	Rain	Fine	—
10			64	75	56	29	97	30 00			5	7	ENE	ENE	Fine	—	—
11			64	68	56	30	14	30 16			9	5	NNE	NE	Fine	—	Clo.
12			60	69	53	30	13	30 10			5	7	NE	NE	Fine	—	—
13			58	69	50	30	10	29 99			7	7	NE	NE	Fine	—	—
14			57	69	56	29	97	30 00			10	9	NE	NE	Fine	—	—
15			59	72	60	30	05	30 09			10	7	NE	NE	Fine	—	—
16	●		67	74	60	30	08	30 03			7	5	NW	NE	Fine	—	—
17			63	71	59	30	00	29 99			3	7	NW	NW	Fine	—	—
18			63	70	60	30	00	30 00			7	10	N	N	Fine	—	—
19			61	65	57	30	00	30 00			10	9	N	N	Fine	—	—

The quantity of rain fallen in the month of July is 59-100ths.

A REGISTER OF DISEASES

Between JULY 20th and AUGUST 19th, 1818.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	9		Febris *Remit. Infant*	10	1
Abscessio	7		Fistula	2	
Amenorrhœa	13		Furunculus	4	
Anasarca	15	1	Gastrodynia	20	
Aneurisma	1		Gonorrhœa *pura*	7	
Anorexia	1		Hæmatemesis	2	
Aphtha *lactentium*	8		Hæmaturia	1	
——— *anginosa*	1		Hæmoptöe	8	1
Apoplexia	1		Hæmorrhois	10	
Ascites	7	3	Hemiplegia	3	1
Asthenia	21	1	Hepatalgia	1	
Asthma	22	2	Hepatitis	23	1
Atrophia	4		Hernia	4	
Bronchitis *chronica*	1		Herpes *Zoster*	4	
Cancer	3		——— *circinatus*	1	
Cardialgia	9		Hydrocele	2	
Carditis	1		Hydrocephalus	4	1
Catarrhus	15		Hydrothorax	3	1
Cephalalgia	22		Hypochondriasis	1	
Cephalæa	1		Hysteria	9	
Chlorosis	4		Hysteritis	2	
Chorea	2		Icterus	4	
Cholera	143	6	Impetigo *figurata*	2	
Colica	9		——— *erysipela*	1	
Convulsio	1		——— *scabida*	1	
Coryza	1		Ischias	3	
Cynanche *Tonsillaris*	14		Ischuria	1	
——— *maligna*	1		Lepra	2	
——— *Trachealis*	1		Leucorrhœa	11	
Diarrhœa	78	2	Lichen *simplex*	2	
Dolor lateris	2		Mania	4	
Dysenteria	14	2	Melancholia	3	
Dyspepsia	40		Menorrhagia	19	1
Dyspnœa	3		Morbi Infantiles*	41	1
Dysuria	4		——— Biliosi*	28	
Ecthyma	3		Nephritis	1	
Eczema	4		Obstipatio	16	
Enteritis	9	3	Odontalgia	8	
Entrodynia	6		Ophthalmia	16	
Epistaxis	8		Otalgia	3	
Erysipelas	10		Paralysis	10	
Erythema *læve*	1		Paraplegia	1	
——— *nodosum*	1		Peripneumonia	9	
Febris *Intermittent*	5		Peritonitis	7	
—— *catarrhalis*	114		Pertussis	11	2
—— *Synocha*	6		Phlogosis	6	
—— *Typhus mitior*	16		Phrenitis	1	
—— *Typhus grav.*	11	4	Phthisis Pulmonalis	25	9
—— *Synochus*	43		Pleuritis	13	
—— *Puerpera*	2		Pleurodyne	6	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Pheumonia	6	1	Scirrhus	3	
Podagra	5		Scorbutus	1	
Pompholyx *benignus*	2		Scrofula	9	
Porrigo *larvalis*	2		Splenitis	1	
——— *favosa*	2		Strictura	6	2
Prolapsus	7		Strophulus *intertinctus*	2	
Prurigo *mitis*	3		Syncope	1	
——— *senilis*	3		Syphilis	25	
Psoriasis *guttata*	1		Tabes Mesenterica	13	
Purpura *simplex*	1		Tympanites	1	
Pyrosis	1		Vaccinia	29	
Rachitis	1		Varicella	2	
Rheuma. *acutus*	16		Variola	5	1
——— *chronicus*	27		Vermes	17	
Rubeola	13	2	Vertigo	16	
Scabies	77		Urticaria *febrilis*	6	
Scarlatina *simplex*	4				
——— *anginosa*	2		Total of Cases	1400	—
——— *maligna*	2	1	Total of Deaths		50

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

It will be found, as we anticipated in our last Report, that affections of the stomach and bowels bear a large share in the present month's catalogue of maladies. As far, however, as our observations have gone, these maladies have not proved so severe as in some other seasons, although they have been greater in number, and earlier than usual in occurrence. They have, in very many instances, shown themselves in the shape of simple diarrhœa.

In one of the returns with which we are favoured, and which comes from the Hoxton and Shoreditch district, it is said, " We have remarked, with much pleasure, that during the warm weather the infectious fever has rapidly declined: not above four fresh cases have occurred within the district of our observation during the last five weeks." In another account, which we receive from the St. Giles's district, it is remarked, " Fever, it is evident, still prevails very much among the poor; but the cases are uniformly mild, and they soon get well." This Report goes on to state, " The fatal cases of typhus occurred in a poor man's family of a wife and six children, himself being attacked first, and he died the fourth day from his admission into the parish infirmary. The other was the eldest daughter, aged fourteen, admitted the day after her father, and died the fifth day. There was considerable delirium in both cases, attended with petechiæ, which were very large, and dark coloured."

A case of *rheumatism* has occurred, which would, by some, be considered as evidencing in its history the alliance which has been suggested between some species of rheumatic and paralytic affections. One side, in the first instance, was apparently the seat of the disorder, without, however, any visible connexion with the state of the brain. The disorder seemed to be gradually upon the decline, under the employment of sudorifics and purgatives; but upon the physician visiting her in the morning subsequent to the day which had been the day of greatest freedom from pain, he found her in a state of stupor, and with appearances indicative of remora or effusion in the encephalon: from this state she gradually recovered, and now lies with a sense of oppression on the right side of the head, and an almost total hemi-

plegia of the side opposite. The case is thus particularized in order that the young practitioner may be on his guard against apoplectic or paralytic seizures, when, under some circumstances, he finds rheumatic ailments taking on an obstinate character, and fastening, as it were, upon one side. Do these occurrences cast any light upon the pathology of chronic rheumatism?

Another case has happened of unexpected determination to the head, in the instance of an *anasarcous* complicated with an *ascitic* affection. In the course of treatment, the patient was suddenly seized with hydrocephalic symptoms, strabismus, sopor, &c. and died within eight and forty hours from their supervention, with unequivocal signs of fluid in the ventricles. Was this an example of metastasis? There was no apparent diminution of either the extremities or abdomen, nor were the alvine or urinary excretions interrupted. The woman was of a leucophlegmatic habit, and between thirty and forty years of age.

Fatal cases of simple *menorrhagia*, unaccompanied by uterine derangements, of an organic nature, are, it is known, not very frequent: the one recorded in the list is described by the reporter of it in the following manner: "She was completely blanched; I could not learn any other history of her case than that she had been attended after an abortion, which had occurred five weeks previously, by a practitioner in the neighbourhood: she was admitted into our institution on the 27th ult., and died on the 29th. Her age was forty-three."

Examinationes post mortem.—In a youth who died of *enteritis*, supervening upon constipation, that was not attended to with sufficient promptness; the practitioner who examined the body reports of it in the following words: "Every appearance that we should expect to see from high vascular action ending in mortification, was evident to an extensive degree in the case of ——. But what particularly attracted notice was, that the appendix cœci seemed to be the primary seat of the inflammation, as that was more particularly marked with the effects of it; having the lower part ulcerated, and the part nearest its connexion with the cœcum gangrenous. Upon opening it a concretion was found, of the size of a melon seed. The whole contents of the abdomen were streaked with mortified lines, and the bowels cemented together by coagulable lymph. No other part was examined, but no doubt such extensive disease had produced corresponding effects on the whole system."

Quarterly Report of Prices of SUBSTANCES *employed in* PHARMACY.

		s.	d.
Acaciæ Gummi elect.	lb.	5	0
Acidum Citricum		52	0
—— Benzoicum	unc.	6	6
—— Sulphuricum	P. lb.	0	9
—— Muriaticum		2	0
—— Nitricum		4	0
—— Aceticum	cong.	5	0
Alcohol	M. lb.	5	6
Æther sulphuricus		10	6
—— rectificatus		12	0
Aloes spicatæ extractum	lb.	7	6
— vulgaris extractum		6	0
Althææ Radix		1	6
Alumen		0	6
Ammoniæ Murias		2	6
—— Subcarbonas		4	0
Amygdalæ dulces		4	0
Ammoniacum (Gutt.)		14	0
—— (Lump.)		7	6
Anthemidis Flores		3	0
Antimonii oxydum		7	0
—— sulphuretum		1	3
Antimonium Tartarizatum		8	0
Arsenici Oxydum		3	0
Assafœtidæ Gummi-resina	lb.	8	6
Aurantii Cortex		7	6
Argenti Nitras	unc.	7	0
Balsamum Peruvianum	lb.	30	0
Balsamum Tolutanum		24	0
Benzoinum elect.		12	0
Calamina præparata		0	6
Calumbæ Radix		4	0
Cambogia		9	0
Camphora		8	0
Canellæ Cortex		6	6
Cardamomi Semina opt.	lb.	10	6
Cascarillæ Cortex		4	0
Castoreum	unc.	6	0
Catechu Extractum	lb.	4	6
Cetaceum		3	6
Cera alba		4	0
—— flava		3	6
Cinchonæ cordifoliæ Cortex (yellow)		8	6
—— lancifoliæ Cortex (quilled)		10	6
—— oblongifoliæ Cortex (red)		16	0
Cinnamomi Cortex		20	0
Coccus (Coccinella)	unc.	3	0
Colocynthidis Pulpa	lb.	20	0
Copaiba		6	0
Colchici Radix		3	6
Croci stigmata	unc.	6	6
Cupri sulphas	lb.	1	4
Cuprum ammoniatum		14	0
Cuspariæ Cortex		4	0
Confectio aromatica		10	0
—— Aurantiorum		3	6

		s.	d.
Confectio Opii	- -	6	0
—— Rosæ caninæ	- -	2	0
—— Rosæ gallicæ	- -	2	4
—— Sennæ	- - -	1	8
Emplastrum Lyttæ	- - -	7	6
—— Hydrargyri	- -	3	6
Extractum Belladonnæ	- unc.	2	6
—— Cinchonæ	- - -	3	6
—— Cinchonæ resinosum	-	6	0
—— Colocynthidis	- -	4	0
—— Colocynthidis comp.	-	2	0
—— Conii	- - -	0	9
—— Elaterii	- - -	50	0
—— Gentianæ	- - -	0	8
—— Glycyrrhizæ	- lb.	6	0
—— Hæmatoxyli	- nc.	0	9
—— Humuli	- - -	1	6
—— Hyoscami	- unc.	2	0
—— Jalapæ	- 2*s.* 0*d.* Res.	3	6
—— Opii	- - -	4	6
—— Papaveris	- - -	1	6
—— Rhæi	- - -	3	0
—— Sarsaparillæ	- -	2	6
—— Taraxaci	- - -	0	9
Ferri subcarbonas	- - lb.	1	4
— sulphas	- - -	1	6
Ferrum ammoniatum	- - -	5	6
—— tartarizatum	- -	8	0
Galbani Gummi-resina.	- - -	12	0
Gentianæ Radix elect	- - -	1	6
Guaiaci resina	- - - -	10	0
Hydrargyrum purificatum	- -	6	6
—— præcipitatum album	-	9	0
—— cum creta	- - -	6	6
Hydrargyri Oxymurias	- unc.	0	9
—— Submurias	- - -	0	9
—— Nitrico-Oxydum	- -	0	9
—— Oxydum Cinereum	-	1	6
—— Oxydum rubrum	- -	6	0
—— Sulphuretum nigrum	-	0	4
—— —— rubrum	-	0	9
Hellebori nigri Radix	lb.	3	0
Ipecacuanhæ Radix	- - -	18	0
—— Pulvis	- - -	20	0
Jalapæ Radix	- - - -	6	6
—— Pulvis	- - - -	7	6
Kino	- - - - -	10	6
Liquor Plumbi subacetatis	M. lb.	1	8
— Ammoniæ	- - - -	3	6
— Potassæ	- - - -	1	6
Linimentum Camphoræ comp.	-	6	0
—— saponis comp.	- -	4	0
Lichen	- - - lb.	1	4
Lyttæ	- - - - -	12	0
Magnesia	- - - -	10	6
Magnesiæ Carbonas	- -	4	0
—— Sulphas, opt.	- -	0	8
Manna optima	- -	7	6
— communis	- -	4	6
Moschus pod, (48*s.*)	in gr. unc.	60	0
Mastiche	- - - lb.	7	0
Myristicæ Nuclei	- - -	20	0
Myrrha elect.	- - -	7	6
Olibanum	- - -	4	6
Opopanacis gummi resina	- -	30	0
Opium (Turkey)	-	44	0
Opium (East India)	- - -		
Oleum Æthereum	- oz.	2	0
— Amygdalarum	- lb.	4	0
— Anisi	- - - unc.	3	0
— Anthemidis	- - -	7	0
— Cassiæ	- -	8	6
— Caryophilli	- -	6	6
— Cajuputi	- - -	5	6
— Carui	- - - - -	1	6
— Juniperi Ang.	- - -	5	0
— Lavandulæ	- -	6	0
— Lini	- - cong.	6	6
— Menthæ piperitæ	- unc.	4	6
— Menthæ viridis Ang.	- -	5	0
Oleum Pimentæ	- - unc.	6	0

		s.	d.
Oleum Ricini optim.	- -	12	0
— Rosmarini	- - unc.	1	0
— Succini 2*s.* 6*d.* —— rect.		5	0
— Sulphuratum	- P. lb.	1	6
— Terebinthinæ	- - -	1	4
— — rectificatum	- -	2	6
Olivæ Oleum	- - cong.	20	0
— Oleum secundum	- -	14	0
Papaveris Capsulæ	- (per 100)	3	6
Plumbi subcarbonas	- - lb.	0	8
— Superacetas	- - -	2	6
— Oxydum semi-vitreum	-	0	9
Potassa Fusa	- - - unc.	1	4
— cum Calce	- - -	0	6
Potassæ Nitras	- - - lb.	1	6
— Acetas	- - - -	10	0
— Carbonas	- - -	4	6
— Subcarbonas	- -	1	8
— Sulphas	-	1	6
— Sulphuretum	- -	2	6
— Supersulphas	-	0	9
— Tartras	- - -	3	6
— Supertartras	- - -	1	10
Pilulæ Hydrargyri	- - unc.	0	9
Pulvis Antimonialis	-	0	9
— Contrayervæ comp.	-	0	6
— Tragacanthæ comp.	-	0	6
Resina Flava	- - lb.	0	9
Rhæi Radix (Russia)	- - -	33	0
—— (East India) opt.	- -	16	0
Rosæ petala	- - -	14	0
Sapo (Spanish)	- - -	3	0
Sarsaparillæ Radix (Lisbon)	- -	8	0
Scammoniæ Gummi-Resina	- unc.	3	6
Scillæ Radix siccat, opt. Ang.	lb.	4	6
Senegæ Radix	- - -	4	0
Sennæ Folia	- - -	6	6
Serpentariæ Radix	- -	8	0
Simaroubæ Cortex	- -	6	0
Sodæ subboras	- - -	5	0
— Sulphas	- - -	0	8
— Carbonas	- - -	6	6
— Subcarbonas	- -	2	0
— — exsiccata	- -	5	0
Soda tartarizata	- -	2	6
Spongia usta	- - - -	24	0
Spiritus Ammoniæ	- M. lb.	5	6
— —— aromaticus		5	6
— —— fœtidus	- -	5	6
— —— succinatus		5	6
— Cinnamomi	- - -	3	0
— Lavandulæ	- - -	5	0
— Myristicæ	- - -	3	6
— Pimentæ	- - -	3	6
— Rosmarini	- - -	5	0
— Ætheris Aromaticus	- -	7	6
— — Nitrici	- -	5	0
— — Sulphurici	- -	7	0
— — Compositus	-	7	6
— Vini rectificatus	- cong.	30	0
Syrupus Papaveris	- - lb.	2	0
Sulphur	- - -	0	9
— Sublimatum	-	1	0
— Lotum	- - -	1	2
— Præcipitatum	- -	2	0
Tamarindi Pulpa opt.	- - -	2	0
Terebinthina Vulgaris	- -	0	10
—— Canadensis	-	8	6
—— Chia	-	14	0
Tinct. Ferri muriatis		5	6
Tragacantha Gummi, elect.	- -	8	0
Valerianæ Radix	- - -	1	8
Veratri Radix	- - -	2	6
Unguentum Hydrargyri fortius	-	5	6
—— —— Nitratis	-	2	8
—— —— Nitrico-oxydi	-	3	0
Uvæ Ursi Folia	- - -	3	6
Zinci Oxydum	- - -	7	0
— Sulphas purif.	- - -	3	0
Zingiberis Radix opt.	- - -	4	0

Prices of New Phials per Gross.——8 oz. 70*s.*—6 oz. 58*s.*—4 oz. 47*s.*—3 oz. 43*s.*—2 oz. and 1½ oz. 36*s.*—1 oz. 30*s.*—half oz. 24*s.*

Prices of second-hand Phials cleaned, and sorted.———8 oz. 46*s.*—6 oz. 41*s.*—4. oz. 35*s.* 3 oz. 30*s.*—2 oz. and all below this size, 25*s.*

MONTHLY CATALOGUE OF BOOKS.

The Influence of the Atmosphere, more especially of the British Isles, on the Health and Functions of the Human Frame. By James Johnson, M.D. Second Edition, improved. 8vo.

A Succinct Account of the Contagious Fever of this Country, exemplified in the Epidemic now prevailing in London: with Observations on the Nature and Properties of Contagion. By Thomas Bateman, M.D., &c. 8vo.

Remarks on Burns and Scalds, chiefly in reference to the Principle of Treatment at the Time of their Infliction. By Nodes Dickinson, Staff-Surgeon to His Majesty's Forces, &c. 8vo.

The Art of Preserving the Feet. By a Chiropodist. 12mo.

Observations on the Properties of the Air-Pump Vapour Bath, in the Cure of Gout, Rheumatism, Palsy, &c. By M. La Beaume. Octavo.

NOTICES TO CORRESPONDENTS.

We have been favoured with an article from Dr. Leach, *on the subject of Phrenology, in reply to* Dr. Ronalds' *Strictures. This paper would have been inserted in the present Number, but that the article to which it is a reply was not concluded. The agitation of this question, by such writers as our Correspondents, cannot fail to be interesting, inasmuch as facts connected with the physiology of the brain are ably brought forward, which are of importance to the investigator of Nature's laws, whether he do or do not subscribe to the assumptions and inferences of the particular doctrine under discussion.* Dr. Leach's *communication shall certainly appear in our next Number.*

Mr. Blackett's *favour has also come to hand.*

We are allowed to promise in our next Number a communication from Dr. Burrows, *on the subject of his recent pamphlet.*

The papers also of Dr. Breschet, *of Paris, and* M. Clemot, *of Rochefort, which have too long been deferred by unavoidable circumstances, shall appear, if possible, in our next Number.*

We beg leave to state to H. G. *that he has inconvenienced us much by the failure of his engagement. The press was kept open till the last possible moment, in order to accommodate his wishes. We should have written to him, had we been favoured with his address.*

Several Books have been received for Review, which shall be noticed as soon as possible.

Communications are to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

No. 58. OCTOBER 1, 1818. VOL. X.

PART I.

ORIGINAL COMMUNICATIONS.

I.

On the Uses and Defects of Parish Registers, and Bills of Mortality; with the Outlines of a Plan for rendering them of greater public Utility. By GEORGE MAN BURROWS, M.D., F.L.S., &c*.

THE advantages to every nation of comprehensive and correct parochial registers of marriages, births, baptisms, and burials, as well as of the diseases of which each person dies, have been well illustrated by the pens of various writers, both English and foreign, on political economy.

That England, in this branch of science, is more negligent than most of her contemporaries, is notorious; and nothing is

* The admission of this very interesting article will necessarily cause us to curtail some other department of the present Number of the REPOSITORY. We feel, however, persuaded our readers will agree with us, that some sacrifice is due both to the writer and to the important nature of the paper. Indeed the introduction of the matter in this part of the Journal is very little more than a change of place; for it was from the first our intention to review, and copiously analyze, Dr. Burrows' pamphlet; in order that the attention of the medical public might be excited to the subject which Dr. B. has treated in so masterly a manner.—It is needless to say, that we shall receive with much gratification any remarks of correspondents on this momentous topic of investigation; which has not only a medical, but a moral and political bearing.—EDIT.

a more convincing proof of it than the fact that the parish-registers of the kingdom are still egregiously defective, and that the bills of mortality of the metropolis, the most populous of modern times, are both in arrangement and language as great a reproach upon the medical character of the nation as they are upon the policy that governs it. Whoever examines the latter must be struck with their numerous errors, and with the barbarous nomenclature of the diseases they record; and if they duly reflect upon the many important purposes, medical, moral, and political, to which properly arranged and regularly kept registers are applicable, it will be admitted that any attempt to improve them, and to substitute a more eligible system, is, at least, deserving encouragement.

With this view, I have endeavoured, in a recent publication*, to direct the attention of the community to the subject; and I now take the liberty, through the medium of the REPOSITORY, to request that of the members of the medical public, who are certainly the most competent judges, as far as relates to registers or bills of mortality.

If I have the vanity to hope, that the tables annexed are real improvements, yet I am quite conscious that I have as little pretension as others to perfection; therefore I am anxious for a free discussion of their merits; and shall feel myself under great obligation for any hint which will contribute to render the plan in any of its details more complete, and easy of adoption. I am the more serious in this request, because it is probable that a Bill will be introduced in the next Session of Parliament, calculated to embrace some of the objects which I have ventured to comment upon and propose.

As I have nothing material to add, I am under the necessity of recapitulating here much of what I have already said in the pamphlet alluded to. But as brevity is important in a periodical Journal, I must entreat indulgence, if the matter I have extracted appear somewhat disjointed; as I have sacrificed much to keep within proper limits. They who are desirous of further information upon any particular point, I beg leave to refer to the "Strictures."

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* Strictures on the Uses and Defects of Parish Registers, and Bills of Mortality, in reference to Marriages, Births, Baptisms, Diseases, Casualties, and Burials; to the probabilities of the expectancy of Life; and to the ascertaining of the Progress of Population: with Suggestions for improving and extending the System of Parochial Registry. By George Man Burrows, M.D., F.L.S., &c. 1818. Underwoods.

Among some of the advantages in medical, political, and moral science, which would result, were proper parochial registers and bills of mortality established and kept throughout the united kingdom, the following present:

I. MEDICALLY.—They point out—

1. The causes of many diseases, and their affinity to one another.

2. The rise, situation, increase, decrease, and cessation of epidemic and contagious diseases.

3. The means of guarding against their extension and effects.

4. The comparative healthiness of different countries and places, climates and seasons.

5. The influence of particular trades and manufactures on the human constitution.

6. They elucidate many important and dubious medical points essential to the perfection of the preventive and curative arts.

II. POLITICALLY.—They are a means—

1. Of ascertaining the increment or decrement of the population in every place, and at any period.

2. Of accurately ascertaining the population of the country, and at any period.

3. Of diminishing, if not nearly superseding, the immense expense incurred by a census.

4. Of obviating the difficulties, great expense, and frequent disappointment in proving marriages, births, baptisms, and burials, to which persons who are desirous of establishing legal proof of their identity, descent, consanguinity, &c. are still exposed.

5. The present extensive and beneficial system of assurance on lives, reversionary payments, annuities, and legacy duties on the latter species of testamentary property, is founded on calculations deduced from numerous bills of mortality.

6. The prosperity or decay of commerce, manufactures, or trade of any place, is shown by comparing bills of mortality of different dates.

III. MORALLY.—They mark—

1. The prevalence of moral or licentious habits; for where there is a proper ratio of marriages to the population of a place, and of persons living to a good old age, there religious, moral, and temperate habits may be supposed to prevail; but where the contrary is observed in the registers, the reverse must predominate.

2. The diseases of which the inhabitants of a place die; and, consequently, those arising from luxury or intemperance.

3. The effects of the passions on human actions.

4. By knowing where they are most required, the means of correcting such effects may be the more effectually applied.

If we refer to medical writers, an almost unanimous opinion will be found to obtain among them, on the utility of correct and enlarged registers and bills of mortality. The improvements which Drs. Haygarth, Percival, and Aiken introduced in the bills of mortality of the towns where they resided, and the conclusions they deduced from them, are practical illustrations of their advantages.

Dr. William Heberden*, especially, by his lucid arrangement of the diseases recorded for a series of years in the London bills of mortality, has shown what useful deductions may be drawn from their contents. He demonstrates, that, notwithstanding all their inconsistencies and defects, they throw a considerable light upon the rise, extension, decline, and fatality of various diseases. And it is fair to infer, that if they were more accurate, and their results were compared with the variations of the atmosphere, that much of the obscurity which now prevails respecting the specific causes of diseases would be developed; and their effects, perhaps, be more certainly guarded against. Were we to decide upon the utility of the present bills from the practical good in medicine which has hitherto resulted from them, the question would be negatived. But we must take a more enlarged view of the subject; and not argue that, because they have not advanced medical science, they are inapplicable to that purpose. When placed under a proper system, their uses will be soon seen, and fully appreciated.

Few subjects having such direct reference to the character of medicine, and the elucidation of the causes of diseases, have been so little regarded as the bills of mortality of this great metropolis. They have remained stationary; and in form and language are almost coeval with their origin; while every thing else connected with science or the arts has advanced with civilization. Why they should have been neglected, when so many able writers have perpetually been referring to, and commenting upon them, it would be difficult satisfactorily to explain.

The most obvious, immediate, and important purpose to which bills of mortality can be applied, is the undoubted means they offer of detecting the rise, site, progress, and effect

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* Observations on the Increase and Decrease of different Diseases, &c. 1801.

of contagious and malignant diseases in populous towns or districts. In this point of view, a point so interesting to every Christian, and every philanthropist, they indubitably deserve the first consideration.

Great Britain, it has been observed, is avowedly behind most civilized nations in the adaptation of political economy to the service of the state. But the establishing of a periodical census, it must be acknowledged, displays a disposition to be more attentive to this source of national wealth and power.

The work of numbering the population of a great empire, is operose, tedious, and expensive; and generally, after all, incomplete. But, if regular and comprehensive registers of marriages, births, baptisms, and deaths, of persons of all religious denominations, were kept and returned at stated periods, how much easier, less expensive, and more accurate will a census become? May not such registers even supersede the necessity of a census? For the increase or decrease of the people may be clearly ascertained by the totals which the aggregate annual returns will exhibit.

The only practical use, perhaps, since the cessation of the plague, to which bills of mortality have been converted, is, that of calculating the chances of the expectancy of life. For this purpose they have been eminently serviceable. Upon calculations which these data offer, a system of life assurance, equally beneficial to the assurer and assured, has been founded; and its universal adoption demonstrates, that this system is, in a remarkable degree, convenient and acceptable to the public. Numerous Assurance Offices have within these few years sprung up in the metropolis, each vying with the other, and all apparently flourishing. In many populous counties similar offices are established. It is a system indeed become now so general, that a very large proportion of respectable persons are immediately or mediately interested in the stability of it. But that stability, and the benefits accruing, depend entirely on the correctness of the data from which the calculations of the expectancy of lives are deduced. And whence are they deduced? Principally from the various bills of mortality of London and other places in England. Their exactness and authenticity, therefore, is a subject of national importance.

That philosophic inquirer and able physician, Dr. William Heberden*, observes, that "the difference of the numbers

* Observations on the Increase and Decrease of particular Diseases, p. 32.

christened and buried is greater between the years of 1740 and 1750 than at any preceding or subsequent period. This difference diminished afterwards; *but still continued very considerable till about* 1770. Now it was from an average of ten years taken in this interval, namely, from 1759 to 1768, that Dr. Price constructed his tables of the probabilities of life, and from which he deduced the population of London. The excess of the burials above the christenings amounted at that time to nearly one-third of the whole number of burials. At present, it is less than one-twentieth: nay, in the years 1790, 1797, and 1799, the excess was actually on the side of the christenings. *Such a prodigious change ought, one would think, considerably to alter Dr. Price's conclusions.* Some allowances are, however, to be made; particularly in consequence of an Act of Parliament passed in 1767, by which it is required that all parish infants shall be sent into the country in three weeks after their birth, to be nursed there till they are six years old*."

Here is one very material datum of Dr. Price's considerably affected in the course of thirty years. Let us examine how far the lapse of fifty years, since 1768, to which date his remarks extend, has influenced the relative proportions of christenings and burials; and whether the progress of twenty years, since 1799, to which Dr. Heberden's refer, has strengthened his inferences, or confirmed or shaken those of Dr. Price. This cannot be done more fairly, than by first stating the medium of christenings and burials in the decad of years Dr. Price selected, viz. from 1759 to 1768, and then comparing its results with successive decads.

The medium of christenings in that decade is, 15,710; of burials, 22,956: in the next, from 1770 to 1780, the medium of the former is, 17,218; of the latter, 21,000†. Hence a very material increase of the one and decrease of the other had occurred in ten years. In the successive decades a prodigious

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* It should be observed, however, that this Act makes provision for the removal of such children only as belong to the seventeen parishes without the walls of London, the twenty-three in Middlesex and Surrey, and the ten within the city and liberties of Westminster. The ninety-seven parishes within the walls of London, which contain, according to the census of 1811, 55,484 inhabitants, and in which the children perhaps most require it, and those of several populous parishes as Mary-le-bone, Pancras, &c. forming a part of the metropolis, but not within the bills of mortality, are not included in this Act of Parliament. — B.

† Dr. Black's Comparative View, p. 422.

increment of christenings and decrement of burials is observable: the last decade is as follows:—

Proportions of Christenings and Burials, in London, from 1808 *to* 1817 *inclusive, according to the General Annual Bills of Mortality.*

	Christenings.	Burials.
1808	19,906	19,954
1809	19,612	16,680
1810	19,930	19,893
1811	20,645	17,043
1812	20,404	18,295
1813	20,528	17,322
1814	20,170	19,783
1815	23,414	19,560
1816	23,581	20,318
1817	24,129	19,968
	212,319	188,816
Medium of christenings.	21,231	Medium of burials. 18,886

Making the excess of christenings in this decade, 23,503; or one-eighth.

But if the *abortive* and *still-born*, which amount in this decade to 6366, be deducted from the burials, to which, as they are not reckoned among the baptisms, they are improperly added, the real excess of *births* in the decade is 29,869; or about a sixth and a half.

Thus then it appears, that since the period when Dr. Price formed his calculations of the probabilities of the duration of life in London, the number of burials, instead of being a third *more*, is an eighth *less* than the christenings; and, that since 1799, where Dr. Heberden's remarks close, and when the burials still exceeded the christenings a twentieth, the christenings are in excess an eighth! But comparing the decade ending in 1768, with that ending in 1817, the relative proportions of the christenings to the burials is increased to nearly one half; and comparing the decade ending in 1799, with the last, the difference in favour of christenings is a fifth. This surely shows a very great and important alteration in the physical state of the inhabitants of London.

Thus far the deductions to be drawn from the bills of mortality of London are principally regarded. But as Dr. Price and Mr. Morgan very justly suppose that a great metropolis is the least favourable to human life, they have extended their observations to several country towns, wherein regular registers have been preserved for a series of years. As Northampton was, in every respect, deemed most eligible, Dr. Price preferred that town. From its registers of mortality from

1735 to 1780, he arranged his table, (No. XVII.) of the probabilities of life; by which the business of the Equitable Assurance Office is chiefly regulated. I have, therefore, also selected that town for inquiry whether any, and what alteration has taken place in its physical state; and whether, from the present data it offers, different deductions would result.

Dr. Price reckoned the population of Northampton to be 5136; and he states, that by a computation of christenings and burials from 1741 to 1780, or forty years, the annual medium of the christenings was 158; of the burials 189½*; and that the mortality, in the single parish of All Saints, from 1735 to 1780, or forty-six years, was 4689; the medium of which is about 102. In 1801, Northampton actually contained, according to the population returns, 7020 inhabitants. The summary of the parish registers from 1791 to 1800 is, baptisms 1630, burials 1607, marriages 737. In 1811, the population was 8427: from 1801 to 1810, the summary of baptisms is 2015, burials 1566, marriages 833, *exclusive* of dissenters.

Through the means of a medical friend at Northampton, who obligingly took the trouble of personally examining them, I obtained a copy of the registers of the four parishes of that town, for the last ten years, *inclusive*, with the exceptions hereafter mentioned, of all the dissenters. The following is the result:

Account of Baptisms and Burials in Northampton, taken from the yearly Bills of Mortality of that Town, from 1808 *to* 1817.

	BAPTISMS.			BURIALS.		
	Males.	Females.	Total.	Males.	Females.	Total.
1808	134	117	251	92	107	199
1809	116	113	229	79	83	162
1810	137	107	244	93	80	173
1811	127	95	222	84	96	180
1812	132	121	253	94	86	180
1813	117	126	243	97	92	189
1814	151	134	285	78	96	174
1815	148	125	273	95	111	206
1816	142	163	305	100	108	208
1817	145	136	281	152	129	281†
Total.	1349	1237	2586	964	988	1952

* Observations on Revers. Pay. &c. vol ii. p. 96.

† It should be noted, that in 1817 there is an extraordinary degree of mortality, in which the burials are equal to the baptisms; and that the excess of burials, comparatively with any preceding year, is in the proportion of 281 to 208.

Neither the baptisms of the Quakers, nor those of the Baptists are in this Table; nor are the burials of the latter included; but I have ascertained, that in this decade the latter have amounted to 91, which makes the total of burials 2043. The excess, therefore, of baptisms to burials, in Northampton, appears to be 543, or more than a fifth. But, in fact, it must be still greater; for if the baptisms, as well as the burials among the Society of Friends and Baptists were added, and assuming only that the one is in the same proportion as the other among other denominations inserted in the parish registers, the baptisms would then exceed the burials upwards of 600 in this decade.

The parish of All Saints, in Northampton, contains 4871, out of the whole population of 8427. A yearly bill of mortality of this parish is published, containing the ages, diseases, and sexes of the deceased. The following Table contains a summary of the mortality of the last ten years in that parish:

Table exhibiting the Numbers and Ages of those Buried in the Parish of All Saints, in the Town of Northampton, from 1808 *to* 1817.

	Under 2 Years.	Between 2 & 5	5 & 10	10 & 20	20 & 30	30 & 40	40 & 50	50 & 60	60 & 70	70 & 80	80 & 90	90 & 100	Totals.
1808	26	3	3	0	7	4	2	4	6	8	1	1	71
1809	17	2	2	3	4	4	2	6	9	3	1	1	54
1810	30	6	2	2	2	2	5	2	4	8	2	0	65
1811	27	1	2	5	4	11	2	4	7	5	2	1	71
1812	15	3	1	2	4	5	6	4	6	9	6	0	61
1813	22	10	5	1	5	5	6	5	4	9	4	0	76
1814	19	3	2	4	5	3	6	6	9	6	3	2	68
1815	26	8	4	2	4	6	5	7	6	10	3	1	82
1816	19	5	3	2	5	0	5	1	5	13	3	0	60
1817	54	11	4	4	8	3	7	5	1	5	3	1	106
Total.	255	54	27	25	48	43	46	44	57	76	28	7	714

Doubtless these facts will elicit many observations which have escaped me; but I will venture to remark, that, according to Dr. Price, the baptisms in Northampton, inclusive of Dissenters, from 1741 to 1780 (40 years), average, annually, 158, and the burials 189; that, according to the abstract of the parish registers, which embrace only such Dissenters as baptize and bury according to the rites of the Established Church, from 1791 to 1800 (10 years), the baptisms average 163, and the burials 160; that, from 1801 to 1810 (10 years), the baptisms average 201, and the burials 156; and that in the last decade from 1808 to 1817, which comprehends all

baptisms, except those of Quakers and Baptists, and the burials of *all* denominations, the annual average of baptisms is 258, and of burials 195; and hence it is indisputable that the medium of baptisms, since Dr. Price wrote, is increased from 158 to 258, while the medium of burials, although the population is nearly doubled, is increased *six* only. And yet we must take into the account, that the last year of this decade (1817,) was one of extraordinary mortality. This, unequivocally, evinces a prodigious change in the physical state of Northampton since 1780. It likewise shows that Mr. Morgan was not correct in supposing, that up to 1803, "the burials in Northampton have uniformly exceeded the births in a *very considerable proportion**: and further, it is evident, that the baptisms have been since progressively exceeding the burials, till the former presents an excess of more than a fifth.

Again: it is computed by Dr. Price, that 1 in 26½, and by Mr. Morgan, that 1 in 25½, die annually in Northampton†. Now the population of that place, as it appears by the returns in 1801, was 7020, and in 1811, 8427; the medium of which is 7723. The aggregate deaths for those twenty years is 3173; and the annual average 158. The proportion, therefore, of deaths in Northampton in twenty years, ending with 1810, is about 1 in 49, instead of 1 in 25½. It is remarkable, that the peculiarity in the mortality of that town which Mr. Morgan has noticed, viz. that more die between the ages of 20 and 30, than between 30 and 40, still obtains.

Hence, probably, it will be allowed to be a rational inference, that the probabilities of life are actually and generally much improved; and, consequently, that Dr. Price's tables, No. XV. and No. XVI. showing the probabilities of the duration of human life in London, from 1759 to 1768, and from 1771 to 1780, as well as that No. XVII. showing the probabilities of life at all ages, formed from the Northampton registers of mortality, from 1735 to 1780, are not correspondent with the present probabilities of life, either in London or the country. Were Dr. Price now alive, to take a retrospect since 1780, he would not affirm, as at that date, "that for the last fifty years there has been no change in the state of London, which has greatly affected its influence on the duration of human life‡."

In the Population Returns of 1811, (p. 200), it is stated, that, "the mortality of the metropolis in 1700 was 1 in 25; in 1750, 1 in 21; in 1801, and the four preceding years, 1 in

* Observations on Reversionary Payments, Ed. 6, (1803) vol. ii. in note, p. 104.

† Ibid, vol. ii. in note, p. 104.

‡ Ibid, vol. ii. p. 308.

35; since that, 1 only in 38: thus showing a gradual improvement in the health of the metropolis." And although I do not possess the same positive evidence as adduced in regard to Northampton, yet, from collateral testimony, I am firmly persuaded, that an inspection of the registers of Manchester, Chester, &c. where they are equally exact, would show a degree of progressive improvement highly satisfactory.

The parochial registers had origin in England with Cromwell, Earl of Essex, under Henry VIII., in 1538; but they were little regarded till 1558, in Queen Elizabeth's reign, when they were ordered to be regularly kept in all churches, &c.; and, for better preservation, to be written on parchment. But, Mr Ralph Bigland* remarks, they were, generally, very carelessly kept; and in many parishes the entries were so irregularly made, illegibly written, or defaced by damp, or neglect, as frequently to occasion great expense, disappointment, and loss.

But this exceedingly important subject has lately received some attention from the Legislature. "*An Act for the better regulating and preserving Parish and other Registers of* BIRTHS, *Baptisms, Marriages, and Burials, in England,*" passed in 1812; the preamble of which states, that "the amending the manner and form of keeping and of preserving Registers of Baptisms, Marriages, and Burials, in the several parishes and places in England, will greatly facilitate the proof of pedigrees of persons claiming to be entitled to real or personal estates, and be otherwise of great public benefit and advantage." This enactment, in principle, is wise; but it is to be lamented, that they who framed it, had not more enlarged and accurate views of the uses for which its very title implies it was intended, and to which it might have been applied. It abounds with objections. Firstly, the act does not enforce registry upon all denominations of religions or sects; which is a grievous defect. Secondly, it does not operate upon hospitals, or other asylums, to compel returns of all burials which take place in their burying grounds. Thirdly, and the most capital error is, that although, by the title of the act, it was obviously intended that *births*, as well as baptisms, &c. should have been distinctly returned, (a most essential part of the register,) yet there is no enacting provision in any of the clauses to that effect; nor is there a column for entering births in any schedule annexed to the act.

Unfortunately, and surely most inconsiderately, the words births and baptisms have hitherto been synonymously used.

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* Observations on Marriages, Baptisms, and Burials, as preserved in Parochial Registers.—1764.

This is a glaring absurdity; the consequences of which have sometimes been very serious. How often does it happen, from some cause or other, children are not baptized for weeks, months, or years, after they are born? and sometimes the ceremony is never performed at all. Instances are on record, where a whole family of children have been christened at once! Sometimes, but not always, the date of the birth is noted, as well as that of the baptism; but this should decidedly be an indispensable entry; for if the former be, by design or accident, omitted, and none alive to testify the birth, the date of the baptism is then the only legal evidence of age*. Children born in one parish, are sometimes baptized in another: this is a source of confusion. A practice also obtains of naming, or half-baptizing a child. Many, there is reason to believe, from neglect or caprice, never proceed beyond this ceremony, and the child remains, in fact, unbaptized†, and unregistered. Therefore, it is clear, that in all cases, with the date of the baptism, that of the birth should also be registered. In the register of baptism, likewise some particulars respecting the residence and occupation of the parents of the child, and the order of primogeniture, might well be added. Indeed, if greater precision in the entries of births and baptisms were observed, it would tend to remove many doubts and disputes, which are perpetually occurring respecting settlements of paupers, and, occasionally, save every parish a burthensome expense. Hence, it is evident, that the Register Act is in need of much amendment. Whether the proposed form of entry (Tables, No. V. and No. VI), will remedy these defects, I am scarcely competent to judge.

The bills of mortality of London, it must be observed, are

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* "A person," says the Rev. Mr. Dade‡, "leaves £5000 to a distant relation, in case his son should die in his minority. It seems, from the testimony of creditable neighbours, that the child was certainly born a fortnight before baptism; that he married in his minority, and died a week under age, according to the *date of the baptism;* being survived by a wife and infant son. The parents and witnesses of the birth being dead, and no particulars found sufficient to ascertain the precise day of his birth, the *entry* of the baptism is admitted as evidence; and the distant relation possesses the fortune, to the great prejudice of the poor relic, and a helpless child."

† A young gentleman, with whom I was acquainted, had a commission presented to him, and it was necessary for him to produce a certificate of his age. It was found that he had never been baptized; and the ceremony was obliged to be performed, although an adult.

‡ Percival's Works, vol. i. p. 422.

placed under the superintendance of the company of parish clerks of London, in whom is vested an exclusive authority to collect, print, publish, and sell them.

This corporation is very ancient; it was first incorporated by letters patent of the 17th Henry III. in 1233, by the style of the "*Fraternity of St. Nicholas;*" and was re-incorporated by charter of the 9th of James I. In 1625, it obtained a decree from the Star Chamber, allowing a press to be kept in their hall, for the printing of the weekly and general bills of mortality of the city and liberties of London; and for this purpose, the Archbishop of Canterbury appoints a printer. All which privileges were subsequently confirmed by a charter granted by Charles II.

Many irregularities in the bills had been committed, and were much complained of in early times. The court of assistants of the company issued, in consequence, in 1695, some amended orders and rules; which they enjoined all parish clerks, within their jurisdiction, to regard, upon their oaths, or answer any contempt thereof, before the Lord Mayor, and Court of Aldermen.

These bills were instituted with the sole, but prudent intention of preventing the diffusion of the plague; and were, at first, only occasionally issued whenever it prevailed. The first bill appeared in 1562; but the first of the series of weekly bills or deaths was not issued till December, 1603. In 1606, there were regular returns made of christenings, as well as of burials. At this period the bills comprised 109 parishes only, without distinction of *within* and *without* the walls. To these, many other parishes were added; and by the sub-division of large parishes into smaller, they nominally increased, till 1746, when they amounted to 144; since which time, I believe, they have been neither partitioned nor augmented. From 1604 the bills took cognizance of all diseases and casualties: but no account of either was published prior to 1629, in which year also a distinction was first made between the sexes. It appears probable, that the first intention of introducing a list of diseases in the bills, was only to distinguish the plague from other distempers. In 1728, the important addition was made of a specification of the ages of all who died, from under two years of age and upwards. Since which, there does not appear to be any material alteration in them; except such as the extinction of one disease, and the rise of a new one dictated.

The causes which render the weekly bills so incorrect, and, consequently, of so little value, are of a nature which there exists no authority to correct. The power vested in the company of parish clerks is totally inadequate to effect it. They

cannot even punish their own members in such a manner as to enforce sufficient obedience to their just and necessary orders.

The parishes of Mary-le-bone, Pancras, Chelsea, Kensington, and Paddington, now forming a great and integral part of the metropolis, and containing a population of 160,000, are not within the bills of mortality, and, therefore, make no returns. Neither are there any returns from St. Paul's Cathedral, Westminster Abbey, the Temple Church, the Rolls and Lincoln's-Inn Chapels, the Chapter House, the Tower Church, and various other places of worship of the Established Church. Besides the omission of these belonging to the Established Church, neither Papists nor Jews, nor any of the various sects, having distinct places of worship or cemetries, are included in the bills. Many charitable institutions and hospitals for the sick-poor, have private burying grounds; but the burials in them are never brought into the account. Again, some dissenters both christen and bury according to the established forms, and are entered in the bills; but these, I conceive, are comparatively few. Omissions, of course, must increase, as dissenters' chapels and burying grounds multiply; and from this multiplication also, many baptisms and burials are inserted twice. Another source of error is, that some dissenting sects baptize agreeably to their own forms, yet bury in the cemetries of the Established Church, and thus create a false disproportion between the returns of baptisms and burials. Many of the wealthier classes, also, when they die, are removed for interment, from the parish in which they deceased, to one in the country; and these burials never appear in the bills of mortality. Doubtless, in a city so populous and wealthy, and where the pomp of woe is so commonly displayed, the omissions of burials, from the gratification of this vanity, are very numerous. Of course these omissions and irregularities subtract a very large number from the aggregates of baptisms and burials.

As to the catalogue of diseases in the London weekly bills of mortality, it is a national disgrace; and is wholly irreconcileable with our acknowledged pre-eminence in medical science and civilization. Nor can any effective reformation of it take place, while its contents and arrangement depend upon sources so ignorant and venal as the present. The information as to the disease of which a person dies, is collected and verified in the following way: the churchwardens of each parish within the London bills of mortality appoint two old women to the office of *searchers;* who, as soon as they hear the knell for the dead, repair to the sexton of the parish, to learn the residence of the deceased. They demand admit-

tance into the house to examine the body, in order that they may see that there is nothing suspicious about it, and *judge* of what disease the person died; and *they* report to the parish clerk. The regular charge for the performance of this office is *fourpence* to each searcher; but if an extra gratuity be tendered, they seldom pass the threshold or hall of the house, and are content with whatever account is given; or, should they actually view the corpse, it is easy to imagine what credit is due to the judgment they pronounce.

This office is now, in fact, a mere nullity; and were the parish clerks ever so attentive, or were all sectaries embraced, still the diseases of which those included in the bills have died, while taken from such authority, must ever be incorrect, and of little comparative utility. This evil requires a radical remedy. The office, as at present filled, should be suppressed; and the attestation of a properly qualified medical practitioner, upon actual knowledge of the disease of which the person died, or upon inquiry and examination of the body, should be substituted. Were fit persons only appointed to report, the nomenclature and classification of diseases, in which there has been little variation since the origin of the the bills, would, consequently, be reformed.

Probably there is not extant in Europe a more marked vestige of the degraded state of medical and chirurgical knowledge in the early part of the seventeenth century, than the language and arrangement of the bills of mortality. Considering, too, the learning and rank of many of the commentators on them, the improvements which have been repeatedly suggested, and the important uses to which they, with all their faults, have been applied, it appears wonderful that greater reformation has not been accomplished. To account for this neglect, we must conclude that the whole system was so radically defective, that all political writers, and medical philosophers, who treated of the subject, felt, that unless it could be amended in toto, it were useless to attempt it in detail.

If the weekly bills be faulty and defective, the general annual bill of mortality, which is a summary of their contents, must be consecutively erroneous. It were sufficient for any person to read the catalogue of diseases in it, to be struck with its incongruities; and thence to infer, that such bills are little calculated for imparting useful information. Many of the diseases are absolutely unintelligible under their present designation: such, for instance, as *headmoldshot, horse-shoe head, overgrown head, rising of the lights, &c.*; others are barbarous, as *liver-grown, twisting of the guts, &c.*; others again, as *aged, bedridden, bile, colds, &c.* cannot be classed,

or are too indefinitely expressed to be admitted as specific diseases.

"*Fevers of all kinds*" is a title too sweeping and indiscriminate, when we contemplate how prominent a figure *fever* is in the catalogue of human diseases; and that from fever the greatest danger to human life impends. The forms of it, therefore, mostly fatal, should be so distinctly placed, as to challenge the readiest attention; while those of an ephemeral or symptomatic character may, with equal propriety, be expunged. *Ague*, the intermitting species of fever, was once a very fatal disorder in this island: now, although it be endemic, in some situations, and the state of the atmosphere sometimes occasions it to be epidemic, yet there certainly are very few persons who die of ague; nevertheless, it often leaves consequences terminating fatally, which may be clearly traced to it as the predisposing cause. *Scarlet* and *malignant fever* are jumbled together under this general head, in the annual bill, although placed separate in the weekly bills. But, in a cursory inspection, I have not detected one entry of a case of the former, for several years; and one only of the latter, in 1812. Yet it is quite clear, that the first is common, and often proves fatal*. *Malignant*, we know, in its usual acceptance, is applied to all disorders which are severe, and considered to be of a contagious nature; we might, therefore, expect the mortality from fevers so characterized to be great. Hence to *typhus*, *synochus*, *puerperal fever*, (child-bed), the *influenza*, (catarrhal fever), or to *small-pox*, *measles*, *&c.* when under an aggravated and epidemic form, the term *malignant* equally attaches. It is obvious, that every species of fever which assumes a character so severe as to be a frequent cause of death, ought, in the annual general bill of mortality, and with still more reason in the weekly bill, to have a distinct entry.

Abortive and *still-born* united, form a large number in the general annual bill; not less, upon an average for the last ten years, than 636. This article particularly requires alteration. It is absurd to place *abortives* and *still-born* among diseases; because, beings born inanimate cannot have had a disease of which they have expired; and, because they are never entered among the births, *i. e.* christenings, but always among the

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* *Scarlet fever*, and *malignant sore-throat*, are classed by nosologists as distinct diseases, but would, perhaps, with much more propriety range under one head. They are frequently confounded with *measles*, by the ignorant. Many of the deaths returned under the latter, ought, properly, to be classed under the former; and this may account for the total omission in the bills of deaths from scarlet fever, and partly for the great increase of mortality ascribed to measles.

burials: consequently, when comparing the births with the deaths, with a view to the expectancy of life, false deductions must ensue. *Abortive* and *still-born* should, therefore, if noticed at all, be placed among *Casualties;* but I am decidedly of opinion that they ought not to be received into a mere catalogue of mortality.

Miscarriage applies solely to the mother, as *abortive* and *still-born* do to the offspring. Death from *miscarriage* is very rare, averaging not three annually; and it is not improbable, that all these are referrible to *uterine hæmorrhage,* under which they ought to be placed; or the death imputed to it, may, as often happens, be the sequel of some acute disorder, to which it should rather be ascribed.

Child-bed is a formidable article in the bill, and is liable to much misinterpretation and error. Besides, as the number of deaths reported under this head is likely, on nervous and delicate females, to produce serious effects, it the more forcibly demands precision. All women dying within the month after delivery, are indiscriminately classed under *child-bed;* whether they die in actual labour, or subsequently of acute fever, consumption, or any other disorder. The disease of which a parturient woman during her month of confinement dies, is usually evident and definable. If she die of that fever peculiar to the puerperal state, the death should be placed under that head; and this is the more necessary, because there is presumptive proof that this fever, in certain seasons and situations, is contagious and extremely fatal*. If she die of any other disease, it should be ranged accordingly. But if death ensue during the progress, or as an immediate consequence of parturition, it should be entered under an appropriate title: *parturition* or *labour* ought therefore to take the place of *child-bed.*

It seems a paradox, that *grief* should be classed among diseases, and *fright* among casualties. But, probably, neither

* Dr. Heberden, in his *Observations,* &c. pp. 40 and 41, exhibits a table of the women delivered and children born, in the British Lying-in Hospital, from 1749 to 1798 inclusive: by which it appears, that, in the first decade, the proportion of women who died to those delivered, was 1 in 42; second decade, 1 in 50; third decade, 1 in 53; fourth decade, 1 in 60; fifth decade, 1 in 288; and, that in the united years 1799 and 1800, the proportion was only 1 in 938! The result of the practice in hospitals, which present so many comforts and advantages, must of course be very different to that among persons deficient in every requisite for recovering from a state of sickness. But this document goes far to prove that the number of deaths ranged under *child-bed* in the London bills of mortality is much exaggerated.

grief, nor joy, nor fright, although an exciting, was ever the proximate cause of death; and it is pretty certain, that if the body of a person who died from any affection of the passions were examined, it would be found that some violence or disorganization had followed, to which the fatal effect might be strictly attributed. The article *sudden death* cannot be dispensed with; since there ever must be instances of sudden death, the causes of which remain concealed: but *grief* and *fright* might very well merge into that head. Perhaps to the *scientific* authority of a coroner's jury these and other anomalies are to be imputed. Many other objections, both to the nomenclature and arrangement of the diseases, might be advanced: these, however, strike me as the most conspicuous.

If the catalogue of diseases demand revision, equally so does that of *casualties*. It may be fairly assumed, that no useful point is obtained by placing under distinct heads, *broken limbs, bruised, fractured, killed by falls, several other accidents*, &c.: these surely may be classed under the general term "*accidents*." The number of *casualties* may be supposed correct, because the returns are made, under the coroner's warrant, to the clerk of the parish in which the casualty happens; but the words in which the verdict is returned, expressing the nature of the casualty, depend on the sense and direction of the coroner; and, therefore, however incongruous, they must be copied and retained. The only hint, therefore, I can offer towards amending this division of the bill of mortality, is, that the sexes of those entered among *casualties* may be distinguished by separate columns for *males* and for *females*.

Infants dying before baptism are not returned by the parish clerks in the bills of mortality. In the old bills they were entered under the denomination of *chrisoms*; but this title has been long disused. Now they are not noticed at all, or they merge into *abortive* and *still-born*, to which they clearly have no relation. This confusion occasions erroneous conclusions in regard to the progress of population, and the results of infantile diseases. Children, therefore, born alive, but who die unbaptized, ought to be entered in the parish or other registers separately; and to distinguish them from the baptized, perhaps none better can be devised than the old title of *chrisom*. It will be necessary also to distinguish the sexes of chrisoms.

Dr. Haygarth, in his second table*, has aimed at placing the diseases with some regard to the nosological arrangement of Dr. Cullen; but being fully aware of the necessity of retaining the vulgar names, he has ingeniously, by means of

* Philosophical Trans. ann. 1775.

figures, made references in a foot note to the appropriate scientific name each disease bears. But as these registers are in the first instance to be kept by the unlearned, at least in medical science, it would be better to use familiar names, and preserve an alphabetical order; except when several diseases naturally class under one title: thus it would be infinitely more convenient for reference, and the diseases be less liable to be confounded and misunderstood, if the varieties of *fever*, *inflammation*, *hæmorrhage*, *dropsy*, &c. were classed under those respective generic titles, than if they were separated.

In regard to the diseases which ought to form the catalogue of the weekly bill, I have selected such only as experience proves frequently end in death. There are, doubtless, many other diseases which terminate fatally, and which are not enumerated: but where the event is rarely mortal, it were useless to insert them in the list. Whenever death occurs from any extraordinary disease, a qualified examiner will always appropriately designate it in his certificate; and the parish clerk, being in all cases guided by a judicious examiner's report, will copy it; so that a mistake in a register or bill in this particular, will seldom happen.

To prevent misconception of the disease, I have adopted English names; retaining a few technical ones only, which, from long usage, have become familiar; and to the common name, is affixed the Latin synonym, by which the disease is generally recognized by medical practitioners and those unacquainted with the idiom of the English language.

For the scientific, who examine these bills with medical views, it will be easy to make such arrangements of the diseases recorded in them, as best suits, not Cullen's only, but any other system of nosology. But any attempt at classing the diseases, or dividing them into acute, chronic, local, &c. would, I think, be futile; and, from the manner of collecting the information respecting them, would indeed be impracticable.

It has ever been an object of interest to learn the diseases to which either sex is most prone, and the relative proportion of mortality of males to females. To obtain this information, it will be requisite only to have one series of columns in the Register Book for "*males*," on one page, and another for "*females*" on the opposite page; and the Register or Bill of Mortality and Diseases (Table, No. I.) may be printed with two sets of columns; one for each sex.

Weekly bills of diseases and mortality have been considered as too frequent; but this objection, although just as far as regards small towns, yet can never apply to those which are large and populous. The frequency of them should be

understood to be regulated by the populousness of a place: for it must be admitted, that the more populous a town is, the greater is the danger of infectious disorders being engendered and propagated; and *è contra*, the smaller the place the less is the danger. Hence the necessity of a more vigilant medical police in a city, than in a small town or a village. Therefore weekly bills should be kept in cities or towns of the greatest population; monthly bills in those of the second rank; and quarterly bills only in such small towns, villages, or hamlets, wherein the population is so limited that infectious diseases must, inevitably, soon become a matter of notoriety. I confess I do not see any utility in weekly returns of marriages, births, and baptisms: these are essential only in political and moral points of view, and may be fully accomplished by the registers, (Tables, No. II. and No. III.)

In the Register of Mortality, (Table, No. II.) I have distinguished the age of all who die before, as well as after the age of twenty, with the addition of their respective conditions in life. It may be objected to this register, that all persons under the age of twenty are reckoned as children; and that if they enter into marriage, and die before twenty, they will neither be rated as married nor as widowed. But when it is considered how very few men marry before twenty, and how few women who marry younger die under that age, the number omitted must be too small to affect any of the purposes for which these registers are intended. When this register is required only to show the rate of mortality, it need not be made up and returned oftener than once a year. The materials which furnish its contents will be obtained from the parish registers; which, as before advised, should embrace a summary of all the deaths occurring within every parish, extra-parochial liberty, chapelry, &c.

Dr. Haygarth's third table is adapted for a general abstract of the contents of parish registers, and is divided into seasons; in order to show the influence of temperature on the human constitution. But there is no place allotted for "*births;*" which I hold, for reasons before stated, to be so essential to distinguish from "baptisms." I have, therefore, arranged a Register (Table, No. III.) more explicit than Dr. Haygarth's. The aggregate of these registers, (No. III.), will, I conceive, be found exceedingly useful in ascertaining the moral condition, as well as the increase or decrease, of the people.

The application for the interment of a corpse, should contain the averment of a householder or the nearest relative as to the death; of the medical attendant as to the disease; and the parish clerk's certificate; and these may be inserted in one schedule, (Table, No. IV.)

Tables, No. V. and No. VI., require no illustration; they

are merely attempted improvements of the schedules (A and C) attached to the Register Act.

But I must reiterate, that it will be a work of supererogation to offer either remarks or proposals for establishing improved registers of marriages, births, baptisms, burials, diseases, &c. or for attaining any of the other objects upon which I have dilated, unless all denominations of religion in the whole of the united kingdom be included.

On recapitulation, it appears that the principal defects in the present system are:—

1. Registers of marriages, births, baptisms, and burials, or bills of mortality are not kept in every place of religious worship; nor in hospitals and infirmaries having private burying-grounds.

2. Children who die unbaptized are not entered in any register or bill of mortality.

3. Registers of baptism do not set forth the place and date of birth.

4. Registers of burial do not specify where a person died, as well as where he lived, nor his condition, whether single, married, or widowed.

5. There is no certificate provided, showing in what parish a person died, with other necessary particulars, as to age, the disease, &c.

6. A corpse may be removed from a parish within the bills of mortality of London to one without, and the burial be omitted in the returns.

7. There is no medical authority for ascertaining and certifying the nature of the disease of which a person died, &c.

8. The names of diseases in the bills of mortality are either unintelligible, or so arranged as to confound diseases very distinct in their characters.

9. In respect to ages, the periods are injudiciously divided; so that many of the purposes to which the bills are applicable in medical and political science are defeated.

10. The law enforcing the keeping of Registers is defective; and does not adequately regard political, civil, or medical information.

11. All parishes and places of worship within that circle denominated the bills of mortality of London, are not included in the weekly or general annual returns; nor is there any existing authority to enforce their being made, and regularly entered.

In recommending any plan to remedy these defects, I should exceedingly regret, if, inadvertently, I have impinged on either the civil or religious rights of the subject. I believe some prejudice obtains among Quakers in regard to the registering of baptisms; and that the sect of Baptists does not baptize before an adult age. Some modification, perhaps,

might be suggested to meet peculiar opinions. Where scruples of conscience only obstruct the attainment of a national object, calm reasoning and conciliation have gone a great way towards removing them.

Enough has been said upon the advantages to be derived from the improvement and extension of registers, bills of mortality, &c.: but to suppose that amendment on a scale commensurate with their importance to the public will be accomplished by voluntary and individual exertions, or by the revival of obsolete provisions of ancient charters, or by any other means than a general conviction, aided by the strong arm of the Legislature, were to betray a total ignorance of human nature and every day's experience. Even conviction does not always insure correspondent efforts. The *argumentum ad hominem* is the best logic: it never fails to secure a cordial and simultaneous co-operation: and happily, in support of my humble endeavours, the views of the statesman, the politician, the economist, the philanthropist, and the philosopher, coalesce.

The plan I have to offer is too undigested; but in the hands of a master, it is susceptible of being shaped into a form more conducive, perhaps, to public good; while to individuals whose prudent care has, through the medium of assurance, &c. provided a maintenance for those whom, when life shall be extinct, they would otherwise leave destitute, it may contribute additional security.

Presumptuous as it may seem, to arraign what persons so eminently qualified have attempted, and imagine that I shall succeed where they have failed; nevertheless I do not despair nor shrink from the trial. Instructed by the ingenious remarks and labours of many able predecessors, and conscious of my obligations to them, I claim no merit, except that of recalling attention to an important but neglected subject. That my suggestions are still defective in many points, and that what I have to propose is capable of much improvement, is already acknowledged. I am sensible the subject requires mature deliberation, and, no doubt, much modification: but if these Strictures produce the effect of bringing it into discussion, my object will be half attained; since, I am persuaded, it requires nothing more, to be appreciated as it deserves.

The corollaries to these premises are:—

1. All places of religious worship belonging to the church of England, or to those dissenting or differing from it; and all hospitals and infirmaries having the privilege of burying, should be registered.

2. Registers of marriages, births, baptisms, diseases, and casualties, and burials, (including chrisoms), to be kept in all such registered places of public worship.

3. All marriages, births, and baptisms, distinguishing the sexes, the baptismal and surnames, the place of residence and condition of the parents, and name of the baptized; likewise the diseases, sexes and ages of all persons dying, with their names, place of residence, condition in life, and date of burial, to be fairly and regularly entered in such registers.

4. Every place of religious worship to be furnished (as is allowed by the Register Act, sect. 11.) with register books, properly arranged; and with printed blank certificates, agreeably to the different forms of the proposed Tables.

5. Entries of marriages, births, baptisms, diseases, casualties, burials, &c. to be made in the register of every place of worship by the officiating minister, and all certificates of the registers to be signed by him or by the minister acting for him; and all burials in private burying-grounds to be entered in like manner by the officiating minister in a register to be kept for that purpose.

6. The guardians of the parish poor children, appointed under an Act of the 7th of his present Majesty, intitled, "*An Act for the better Regulation of the Parish Poor Children of the several Parishes therein mentioned within the Bills of Mortality,*" to cause entries to be made of all births, baptisms, and deaths, of such children, with the sex of each child, and the disease of which it died; and to return a weekly account of the same to the clerk of the parish to which the children belong.

7. All deaths occurring in the army, or on board of British ships, whether his Majesty's, or belonging to others, to be registered and returned, so as to form part of the annual aggregate of mortality.

8. The office of parish searcher, now exercised by females, to be abolished.

9. The disease of which a person dies, to be attested by the medical practitioner who attended the deceased; or if none have attended, by some other appointed for that purpose; who, upon view of the body, should certify the disease, to the best of his knowledge.

10. Every householder on whose premises a person dies, to apply, or cause application to be made within forty-eight hours, to the officiating clerk of the parish wherein he resides, for a printed blank certificate; which certificate to be filled up, with a statement of the condition, whether single, married, or widowed, occupation or trade, age of the deceased, date of decease, and also the disease of which he or she died, according to the report of the medical attendant.

11. This certificate to be signed by the said, or some other creditable householder, and the said medical attendant, and be forthwith returned to the said parish clerk; who, on re-

ceipt thereof, should sign the certificate for the burial of the corpse.

12. No undertaker or other person to move a corpse for interment, or convey it into another parish, until the aforesaid certificate be produced.

13. If a corpse be intended to be buried in any other church, chapel, or ground, other than that belonging to the parish wherein it lies, the place to which it is to be removed for interment to be signified to the officiating clerk, who shall insert the name of the said church, chapel, or place in the certificate, and enter the same in the register of the church, &c. to which he belongs.

14. No officiating minister or other person to bury a corpse without first receiving such certificate.

15. The officiating clerks of all extra-parochial places of worship to make weekly returns of all entries in the registers, to the officiating clerk* of the parish in which such places are situated or are contiguous to.

16. All parishes, any part of the boundaries of which are within *eight*† miles of the Royal Exchange of London, to be deemed within the Bills of Mortality; and the officiating clerks of such parishes to make weekly returns to the Company of Parish Clerks, at their Hall, Wood Street, London.

17. The Company of Parish Clerks of London to make a weekly return of all diseases, casualties, and burials, occurring within the limits of their jurisdiction, with the ages and sexes of the deceased, agreeably to the form of the Register (Table, No. I.), one copy of which, as heretofore, to be sent to the King or Secretary of State, and another to the Lord Mayor.

18. The officiating clerks of all parishes and places of religious worship in a city or town, the inhabitants of which, according to the last population returns, exceed the number of (40,000?) in like manner to make *weekly* returns to the mayor or chief magistrate of such city or town.

19. The officiating clerks of all parishes and places of religious worship, in a city or town, the inhabitants of which are (under 40,000, and above 10,000?) in like manner, to

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* It has been remarked, that the officiating clerks in many country parishes are not competent to keep such registers as I have proposed. This may be true, and it would prove an obstacle to their being generally employed. As far as the Register Act is concerned, all the entries are imposed on the officiating clergyman. No doubt the duties these regulations, if adopted, would add, will be undertaken by the clergy, upon a proper consideration being assigned for the trouble.

† The department of the *Seine*, of which Paris is the centre, is of this extent, and is included in the enumeration of the population of that capital.

make *monthly* returns to the mayor or chief magistrate of such city or town.

20. The officiating clerks of all parishes or places of religious worship, in a city, town, or other place, the inhabitants of which are under (10,000?) in like manner, to make *quarterly* returns to the mayor or chief magistrate; or if there be no mayor or chief magistrate, then the returns to be made to the magistrates of the district, in quarter sessions assembled.

21. The several returns of the officiating clerks to be verified by the officiating ministers.

22. The officiating parish clerks to be compensated for their trouble, by being allowed a moderate fee on granting and entering certificates of burial; the Company of Parish Clerks of London to have the exclusive right of printing and selling the Weekly and Annual Registers or Bills of Mortality returned within their jurisdiction; and all other parish clerks to have the same right in regard to the Bills of Mortality of their respective parishes.

23. The several mayors and magistrates to whom the returns are addressed, within a certain time, to cause a summary of the same to be made out agreeably to the form of the Registers, No. I., No. II., and No. III., and transmit true copies thereof every quarter to the Secretary of State for the Home Department.

24. Whenever, according to the weekly, monthly, or quarterly Register or Bill of Mortality and Diseases, (Table, No. I.) it appears that any epidemic or dangerous distemper prevails in a particular parish or district, or that the mortality greatly exceeds the ordinary returns; then the magistrates in whose jurisdiction such place lies, to be enjoined instantly to take medical advice as to the causes of such disease or mortality, and be empowered to adopt such measures as may be most advisable to remove the presumed causes, and prevent, if possible, the spreading of the disease; and moreover to give such relief as can be afforded to those suffering from it. In all such cases, likewise, the magistrates to be enjoined to give notice thereof, within a specific time, to the Secretary of State for the Home Department.

25. The provisions of the Act of the 52d Geo. III. "*for the better regulating and preserving Parish and other Registers of Births, Baptisms, Marriages, and Burials, in England,*" to be adhered to; but the Act to be amended or repealed, in order to introduce the proposed regulations.

26. An abstract of all the returns made to the Secretary of State to be annually presented to Parliament.

Such are the outlines of a plan, which, I humbly conceive, may, under the auspices of an enlightened legislature, be rendered eminently useful to the state. And not the least of the advantages to the public resulting from its adoption will be, that many of the points so much at present in discussion among writers on political economy, would be definitely determined and set at rest.

MEDICAL SOCIETY

No. I.

Weekly, Monthly, Quarterly, or Annual Register of Diseases and Mortality for any City, Town, or Parish.

| DISEASES. | DEATHS. | | |

TABLE, No. II.

GENERAL REGISTER OF MORTALITY;

Containing the Ages, Sexes, and Condition in Life.

Ages.	CHILDREN.			ADULTS.									
	Males.	Females.	*Total.*	Ages.	Bachelors.	Husbands.	Widowers.	*Total Men.*	Maids.	Wives.	Widows.	*Total Women.*
From Birth to 1 Month.				20—25								
1 to 2				25—30								
2 to 3				30—35								
3 to 4				35—40								
4 to 5				40—45								
5 to 6				45—50								
6 to 9				50—55								
9 to 12				55—60								
1 to 2 Years.				60—65								
2 to 3				65—70								
3 to 4				70—75								
4 to 5				75—80								
5 to 10				80—85								
10 to 15				85—90								
15 to 20				90—95								
Totals under Twenty.				100 & upwds.								
				Totals								

TABLE, No. III.

Register of Marriages, Births, Baptisms, and Burials.

1818.	Marriages.	BIRTHS.			BAPTISMS.			BURIALS.			
		Males.	Females.	*Total.*	Males.	Females.	*Total.*	Males.	Females.	*Total.*	
January.											Winter.
February.											
March.											
Totals.											
April.											Spring.
May.											
June.											
Totals.											
July.											Summer.
August.											
September.											
Totals.											
October.											Autumn.
November.											
December.											
Totals.											

	Marriages.	BIRTHS.			BAPTISMS.			BURIALS.		
		Males.	Females.	*Total.*	Males.	Females.	*Total.*	Males.	Females.	*Total.*
Aggregate of, 1818.										

CHRISOMS.

1818 { Males ..... } *Total*
{ Females ..... }

*** This Form is adapted either for Quarterly Returns, or an Annual Aggregate.

TABLE, No. IV.

FORM OF CERTIFICATE FOR INTERMENT.

I, *A. B. of the Parish of* *in the* (1), *of* *do certify, that to the best of my knowledge and belief, C. D.* (2), *of* (3), *in the* (4), *died of the* (5), *the* (6), *of* *in the year* 18 *; aged* (7).

Signed, *A. B.*

Dated the *of* 18 *Householder, living at* (8).

CERTIFICATE OF DISEASE.

I, *E. F. do certify, that to the best of my knowledge and belief, the above-mentioned C. D. died of the* (9), *the* *of* (10), *in the year* 18 *Dated the* *of* 18 .

Signed, *E. F.* (11).

PARISH CLERK'S CERTIFICATE.

I, *G. H. Officiating Clerk of the Parish of* (12), *in the* (13), *do certify, that I have received a regular certificate of the death of C. D.* (14), *of the said parish, aged* *and that* *died of the* (15); *and that application has been made for the corpse to be buried in* (16), *situated in the parish of* (17), *in the* (18).

Signed, *G. H.*

Officiating Clerk of the Parish

Dated the *of* 18 *of* *in the*

---

(1) Insert town, city, or county.

(2) Condition, *i. e.* single, married, or widowed, rank, and profession, trade, or occupation of the deceased.

(3) Street, place, or town.

(4) Town, parish, city, or county.

(5) Name of the disease.

(6) Date.

(7) Age of the person.

(8) The place of residence.

(9) Name of the disease.

(10) Date.

(11) Whether physician, surgeon, or apothecary, and residence.

(12) Name of parish.

(13) Town, city, or county.

(14) Name, condition, *i. e.* whether single, married, or widowed; rank, profession, trade, or occupation.

(15) Name of the disease.

(16) Name of the cathedral, church, chapel, or burying ground.

(17) Name of the parish.

(18) Name of the town, city, or county.

TABLE, No. V.

Form of Entry of Baptisms, instead of Schedule (A) No. I. *annexed to the Register Act*, p. 1332, cap. 146.

Baptisms solemnized in in the County of						in the Parish of in the Year		
When born.	Where born.	When baptized.	Christian Name.	Parents Names.		Abode.	Quality, Profession, or Trade.	By whom baptized.
				Christian.	Surname.			
1818. March 20th.	Parish of St. Giles, Middlesex.	1818. April 25th.	John, First Son of	William and Mary.	Smith.	No. Gt. Russel Street.		
1818. March 26th.	Parish of St. Mary, Lambeth.	1818. April 30th.	Mary, Second Daughter of	Thomas and Sarah.	Brown.	No. High Str. Lambeth.		

TABLE, No. VI.

Form of Entry of Burials, instead of Schedule (C) No. I.

Burials in the Parish of in the County of in the Year								
Name.	Condition.	Quality, Profession, or Trade.	Abode.	Where died.	Cause of death.	Date of burial.	Age.	By whom buried.
William Smith.	Married.		Gt. Russel Street, St. Giles's, Middlesex.	St. Mary, Lambeth.	Typhus Fever.	1818. May 1.		

*** Under the heads of Columns, some supposititious entries are made to show their purport.

62, *Gower Street, Bedford Square.*

II.

Some Remarks on Mr. Wright's *Paper "on Extraneous Substances in the Ears.* By F. Ford, Bath.

I am perfectly aware it sometimes happens, that persons suffer materially from the introduction of foreign bodies into the ear; and although there would be much difficulty in convincing me, that the effects of such an accident have occasioned death, I will so far agree with Mr. Wright; the case, however, which he has related is that in which the attendant symptoms were exactly those which would naturally have been anticipated from a very limited knowledge of pathology: if an extraneous body be introduced into the ear, and allowed to remain, in the generality of cases it would happen that the consequent inflammation would terminate in the formation of an abscess, effecting its removal without the assistance of any hook, in whatsoever manner constituted: if, however, the attendant inflammation be not sufficiently acute to produce an abscess, the effect will be a destruction of the integument lining the canal, the body yet remaining in its estranged situation. Let us for a moment consider what would be the consequence of such an erosion; granulations would spring up, and from the continuation of the local irritation, would inevitably be superfluous: let us also consider the consequence of such a superabundance; fungus is formed, which by itself obstructing the passage, will subsequently prevent its exit; this fungus, however, is essentially different from what is by any well-informed practitioner considered as a polypus; it differs decidedly in its nature; nay, it differs so materially, that the indications for the cure of the disease are diametrically opposite. Although I have admitted that much difficulty is commonly attendant on the removal of bodies from this situation, I have met in the course of my practice with a considerable number of these troublesome cases; and if I might be allowed to report to your readers the result of my experience, I should say, in preference to any hooks or mechanical attempts, that a little oil dropped into the meatus will ordinarily render our object effectual; when such will not succeed, the *contre coups*, occasioned by the concussion of the skull on the opposite side, guarded with a pillow, in the manner recommended by Mr. Abernethy, will rarely fail. With regard to hooks, every person acquainted with the structure of the ear must be aware not only of their inadequacy in general, but of their detrimental effects, scarcely avoidable; even that of Mr. Wright's, which is simply a tenaculum, cannot be exempted from such an imputation. I have written

thus far with a view of pointing out the necessity of distinguishing between fungus, resulting from the exuberances of granulation, and polypus, commonly so called; to say more on this particular would be superfluous: Mr. Wright, however, would confer upon me an obligation if he would give me the information, whether or not the patient, a boy of nine years of age, from whose ear, by means of his hook, he extracted the pea, together with what I should term the fungus occasioned by its presence in that passage, really took the dose of medicine which he prescribed for him; as five ounces of the phosphate of soda is more than I am in the habit of prescribing even for adults: at the same time it may not be amiss if he will explain himself on the subject of a *solution* of the liquor plumbi acet.?

III.

Reply to Strictures on Mr. Chapman's *Remarks on Absorption.* By Edward Chapman, Surgeon, Bath.

I have attempted to prove, in my Observations on Absorption, "that the absorbent vessels are, in the execution of their functions, perfectly passive, and that the process of absorption is referrible to some principle independent of life, to some universal law of nature resulting from the peculiar adaptation of the parts, partaking in the absorbent functions."

Among the many arguments adduced in support of this doctrine, I have remarked that the power, or rather, I should say, the extent of the absorbent process, sustains, during the continuance of the first or apparent stage of death, no diminution whatsoever; a circumstance naturally to be expected if it had been referrible to any vital or active property. I have mentioned the fact of the diminution in size which an ascitic abdomen commonly experiences from the absorption of the water, the flaccidity which obtains in the parietes of abscesses, where antecedent to death no muscular structure had been concerned, produced by the same cause operating at a similar period, namely, the continuation of absorption subsequently to death.

Mr. Lewis, whose Remarks were published in the last Number, although he has expressed himself in a manner somewhat indistinct, I am enabled to collect that he is inclined to oppose the admission of the fact, that water is capable of being absorbed after death has taken place. He then admits that he has observed a diminution in the *concavity* of the abdomen, (he means, I conclude, convexity); but he will not subscribe to my opinion, because he does not know where

the water is conveyed. The admission of the fact is all that is requisite for my argument; and as I am unwilling to prolong this uninteresting discussion, Mr. Lewis's kindness will excuse me if I conclude by referring him to M. Corvisart's "*Traité des Maladies du Cœur,*" in which he will not only find that the fact did not escape the observation of this author, but also a solution of his question, "What becomes of the fluid so absorbed?"—If this very generally read work had been compassed in the reading of Mr. Lewis, two things would have resulted, he would have saved me the trouble of a reply, and spared the reader the unpleasantness attendant on a perusal of this repetition of my unaltered sentiments.

IV.

Case of Enteritis. By P. C. Blackett, Surgeon R.N. M.L.S. Park Street, Grosvenor Square.

I was requested on the 15th of last June to visit Mr. G. O., ætat. 23, who complained of acute pain in the abdomen, which was very sensible to the touch, so much so, that he could hardly bear the bed coverings. It was accompanied with violent shootings and twistings about the umbilicus; his pulse was slow and contracted; bowels very costive and tense; urine high-coloured, and in small quantities at each evacuation, which were very frequent; tenesmus at times extremely violent. This young man had been bathing the previous morning, and went into the water in a state of profuse perspiration, which, of course, was checked, but he did not at the time find any inconvenience (excepting that his nose bled after he came out of the water,) until the afternoon of the same day, when he was seized, after a long walk, suddenly with a sharp pain in, or rather around the navel; the pain continuing, a friend advised him to take some* tincture of rhubarb, which relieved the pain for about two or three hours, and he went to bed, and took some gruel with a table spoonful of brandy in it: in about an hour the pains returned with double violence, and continued all night; but they were a little easier towards morning; when his friend, finding that the tincture of rhubarb had not operated, repeated the same quantity, with the addition of an ounce of Epsom salts dissolved in peppermint water: finding this had not the least effect, and that the pains were beginning alarmingly to increase, they sent for me about 12 o'clock. The patient I found with the symptoms before related; I told

* Six pennyworth, which, by the size of the bottle, was about one ounce.

him that his case was an inflammation of the bowels, and that he must be blooded, and that largely; it was some time before I could gain his consent, as he was, in general, very much averse from it; at last I plainly told him, (the pains increasing,) that if he were not immediately blooded, his life would be the forfeiture of his obstinacy, when, with great reluctance, he consented. I took sixteen ounces, and bound the arm. I then examined the pulse, which still continued slow, hard, and contracted, and my patient not in the least relieved. I immediately removed the bandage, and took another* basin full, the pain then suddenly disappeared, and his expression was, that he was in heaven now; his pulse became soft and full; he then fainted, but recovered in a few minutes, and passed a large quantity of high-coloured urine. I ordered him the following draught, and barley water, &c. when thirsty:

℞ Ol. Ricini, ℥j. Mucil. g. a. q. s.
Aq. Menth. Viridis ℥iss.—Ft. Haust.

6 P.M. I found my patient in a gentle perspiration; the draught had operated twice; the stools were very offensive; urine high-coloured; pulse soft and full: during the night I ordered the following:

℞ Antimonii Tartarisati, gr. iss.
Magn. Sulphatis, ℥j.
Decoct. Hordei, ℥vij.—Ft. Mistura. Sumantur Cochlearia tria 4tis horis.

16th. This morning I found him very much heated, although his bowels had been moved four times; pulse hard, and very low; urine in small quantities, and high-coloured: he did not complain of any pain, except when his bowels were pressed; but had a violent burning about the navel: tenesmus coming on while I was speaking to him, and a slight pain in the abdomen, I immediately took ten ounces more of blood from him, and ordered an injection of mutton broth, with thirty drops of Tæ. opii; the mixture to be continued. About three o'clock his mother came to me, begging me to visit her son immediately, as he must die if not relieved, he being in such violent pain. As soon as I saw him, I perceived there was not any time to be lost, therefore I again took away sixteen ounces of blood, then tried the pulse as before, but as it still continued hard and contracted, as well as slow, I was determined to persist in venesection, until I found an alteration in it; therefore I opened the orifice, and took another† basin

* This basin being larger than the other; I measured the blood, and found it to contain nineteen ounces and a half.

† I afterwards measured this, and found it to contain eighteen ounces, six grains.

full; the pulse then began to become soft and full, when he fainted, as before. I ordered a blister to the abdomen, the mixture to be continued, and injection to be repeated every six hours.

8 P.M. I found him easy, but complaining of internal soreness; pulse soft, very full, and rather quick; urine not so high-coloured; thirst very great; skin moist; to continue mixture and injection, and to take barley water, gruel, &c. to relieve the thirst.

17th. Very easy in regard to pain in the abdomen; but the blister is very troublesome to him; does not complain of that internal soreness, or heat; skin very moist; has been in a copious perspiration during the night; urine better colour; has had nine motions; pulse soft, and rather quick; tenesmus left him after the third injection: omit inject. but continue mixture.

9 P.M. Much the same as in the morning, but very weak; blister uneasy; complains of scalding in his urine; dressed the blister; ordered him a flannel waistcoat; a pill with three grs. of calomel, h. s. and a saline draught, with five drops of Tæ. opii. h. s. also a common black aperient draught early in the morning.

18th. Has had a very good night; does not complain of any thing excepting weakness; bowels have been open eight times: in the first three motions, were voided several masses of indurated fæces; allowed him to-day beef tea, or mutton broth, and to take the following mixture, and a pill at bed-time:

℞ Magn. Sulph. ℥j.
Aq. Menth. pip. ℥vj.
Tæ. Opii. gr. vj.—Ft. Mist. Capt. Coch. iij. 4tis horis.
℞ Pil. Hyd. gr. v.—Hora somni sumend.

19th. Much better, but weak: to continue as yesterday.

20th. Better; allowed him a small quantity of wine; diet moderate, and to take his pill at bed-time, and aperient draught early in the morning: after this he recruited fast; and the only remaining indications were to attend to his bowels, and restore his strength as soon as possible. It is scarcely necessary to notice in conclusion, that the baneful effects of taking tincture of rhubarb, or spirits, are well marked in this case; indeed, I have not the least doubt, but, that if the subject of the attack had taken a strong aperient, instead of having recourse to these irritating materials, there would not have been occasion to have taken, in so short a space of time, eighty ounces and two grains of blood. It is much to be lamented, that chemists, &c. should sell drugs of this kind so indiscriminately. In some spasmodic affections they afford relief; but in inflammatory diseases they are

deadly poisons; and who but individuals professionally accustomed to mark the nice shades of disordered action are qualified to determine upon the presence of the one or the other state?

V.

A general View of the Diseases usually occurring in Boys, during the period between Infancy and Puberty, deduced from Observation of those in Christ's Hospital. By HENRY FIELD, Member of the Society of Apothecaries, London, and Apothecary to Christ's Hospital.

[Continued from page 33, vol. x.]

TABLE OF DISEASES.	1818 June.	1818 July.	1818 Aug.
1 Cynanche tonsillaris	5	4	0
2 Febris Synochus	4	0	2
3 Tussis Catarrhalis	1	0	0
4 Peripneumonia notha	1	0	0
5 Pleurodyne	1	0	0
6 Rheumatismus acutus	4	1	0
7 Nausea, Gastrodynia, Diarrhœa	2	9	4
8 Obstipatio	1	1	0
9 Cephalæa	1	1	0
10 Otalgia	3	0	0
11 Syncope	0	0	1
12 Parotis benigna	0	0	1
13 Urticaria	3	0	0
14 Petechiæ sine Febre	0	1	0
15 Herpes pustularis	1	0	0
16 Prurigo mitis	1	0	0
17 Scabies	0	0	10
Totals	28	17	18

The summer months of June, July, and August, have been very remarkable for unusual heat and dryness; with the exception of occasional and partial thunderstorms, which have happened not more than once or twice in any given place throughout the kingdom: there has been no rain during the whole period, and the atmosphere has been almost always warm, and generally hot, so as to be frequently sultry.

The diseases in this house have been so few and unimportant, as to admit of scarcely any observations. Though cholera morbus, and other intestinal diseases have been very frequent in the metropolis, often severe, and sometimes fatal, particularly in early infancy; yet not a single instance of the

former has been observed among our boys, and the more common affections of the primæ viæ have been mild, and by no means numerous. From this circumstance it may, I think, be safely inferred, that genuine cholera is a disease to which boys, between seven and fourteen years of age, are but little inclined.

The August vacation, which has been this year longer than usual, will, in some measure, account for the paucity of cases occurring during that month, and part of July.

AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

LXV.

ROBERT MINFIELD, aged sixty-eight, died on the 8th of last August, with an affection of the respiratory organs; the precise nature and seat of which were obscure to the medical gentlemen who were in attendance upon him, (the late Dr. Adams, and Mr. Jackson, of Old Street). The history of the case is shortly as follows:—Having, about a year previous to his disease, sat upon cold and damp grass, without his hat, he was attacked by a catarrhal disease, which was particular in its character, from being accompanied with a troublesome hiccough that lasted about twelve days. On recovering from these immediate affections, a difficulty of breathing remained, which was without any painful sensation; and it seemed as if the air in respiration passed through a very small tube: his appetite and health remained good; no emaciation took place, and he was in the occasional practice of walking (which he could do without fatigue,) from four to eight miles in the day. The difficulty of breathing continued, however, progressively to increase, and no medicines that were had recourse to proved even of partial and temporary avail, with the exception of emetics; from which he did at times experience some slight relief. In the few days which preceded his death his sufferings from this impeded and difficult respiration were great in the extreme.

Dissection.—On opening the thoracic cavity, the lungs and investing membranes were found free from any appearances of disease, with the exception of a scarcely observable adhesion between the pleura and right lobe. On the trachea there were marks of slight inflammation. The inner surface of the larynx was much thickened, so as to leave a very small aperture for the entrance and egress of air; this was particularly remarkable at the lower part, and an abscess was detected in the actual substance of the cricoid cartilage, which opened

immediately under the epiglottis: the matter which issued from it was of that curdly quality which characterizes the discharge from chronic abscesses of a scrophulous nature. The parts are preserved; and the abscess imbodied, as it were, in the substance of the cartilage, is distinctly to be seen.

Observations.—We do not recollect any case in the records of pathology of a nature precisely similar to the foregoing, viz. of the actual substance of the cricoid cartilage becoming the seat of ulceration. The inert nature of general remedies under these circumstances is sufficiently explicable, as well as the partial relief obtained by the action of emetics.

PART II.

ANALYTICAL REVIEW.

I.

An Essay on the Symptoms, Causes, and Treatment, of Inversio Uteri; with a History of the Successful Extirpation of that Organ, during the Chronic Stage of the Disease. By W. Newnham, Esq.

The main object of the present work is to discuss a most momentous question, namely, Whether any circumstances can justify the excision of the womb? and the affirmative reply to this question is grounded upon the successful issue of a case which is detailed in the pages before us. A single case, however, remarkable and important as it may be, is not *in se* sufficient to constitute a book; and Mr. Newnham has, therefore, taken occasion to introduce other considerations, both of a physiological and practical nature, into his treatise, which commences with cautions and directions respecting placental delivery, and terminates by remarks on the several theories that have been proposed to explain the still unsolved enigma of conception and generation.

We have already allowed the recorded operation to be creditable to the judgment and ingenuity of the operator; and we are disposed to express ourselves in the same terms of approbation generally as to the record itself. As a literary and medical production, however, Mr. Newnham's treatise is not without its faults. We have no quarrel with authors for the occasional introduction of untranslated quotations; but when a book, professing to be original and English, is nearly half made up of French extract, we cannot help inferring that the

wish to inform is too much tinctured by the desire to display. Our author's own composition too is occasionally loose and ungrammatical; and if his tract should arrive at a second edition, a fate which we heartily wish it, Mr. N. will do well to overlook and correct such sentences as the following:—

"The detail of the modern operations of Dupuytren, Surgeon at the Hôtel Dieu, has not yet been fairly *detailed* to the public, notwithstanding the success which has attended several *instances.* Enough, however, is known from the *proceedings* of Dupuytren and Osiander, *to be assured* that a considerable portion of the uterus may be extirpated without great difficulty."—p. 25.

The medical fault, so to express it, that we find with Mr. N.'s production, is this, that in the detail of his case he has neglected to mark the degree of constitutional re-action by the usual indications, viz. pulse and other functions.

But in spite of faults both of omission and commission, the tract before us is, we do not hesitate to say, worthy a place in the library of every medical practitioner; and we sincerely desire, as well as confidently expect, to hear of its extensive circulation, more especially among the practitioners of the obstetric art.

Our author is first naturally led to consider the causes from which an inversion of the uterus most commonly proceeds; and on this head we shall give his remarks at length, because, however familiar they ought to be with every one who professes the practice of midwifery, we have reason to fear that there is not sufficient attention universally given to the precepts which they teach.

"The most frequent cause of inversion of the uterus is the imprudent management of the placenta, and rude attempts to hasten its expulsion, by pulling at the chord; but this accident may likewise be occasioned, when the patient is encouraged to make vehement voluntary efforts to bear down, at the moment when the fœtus is about to be pushed into the world: it may be produced by the child being suddenly born, while the woman is in an erect position, and consequently the excessive capacity of the pelvis will be a predisposing cause of the disease; and it may arise from carelessness in the management of delivery when the funis is either preternaturally short, or is rendered so by its being coiled round other parts of the body. These causes will all operate more powerfully in proportion as the uterus may be in a torpid or atonic state*.

* The too great projection of the sacro-vertebral angle has been mentioned as a cause of inversio uteri, in an ingenious modern work, which really forms a great curiosity in the history of obstetrical literature. Vide "Mémorial sur L'Art des Accouchemens, par Madame Veuve Boivin, Maitresse Sage-Femme, &c." à Paris, 1817.

"From the recital of these causes, it is evident that the inversion of the uterus will be most successfully prevented, by acting upon the simple scientific principle of waiting the return of uterine pain, before employing any extractive force for the removal of the placenta; and of attempting its delivery, *when this is immediately necessary*, rather by exciting uterine contraction, than by any misdirected pulling of the chord. The safety of the patient consists only in a state of contraction of the uterus, and this, therefore, is the object most earnestly to be sought after by the practitioner. The other causes of this accident will be obviated by moderating the efforts of the woman, during the last stage of labour, and waiting quietly for pain, after the head is born, instead of effecting the delivery of the trunk by manual assistance; by confining the patient, in every instance, and especially when the pelvis is more capacious than ordinary, to an horizontal position, from the moment that the head begins to press upon the perinæum; by insisting that she should not be moved off the bed, during that too frequently unfortunate process of "*putting her to rights*," as it is falsely termed; and by attending carefully to the state of the umbilical chord, enlarging its coil, where this is possible, so as to pass it over the fœtal head, or to allow the body to slip through it, or tying and dividing it when this is impracticable. The extreme shortness of the chord should always be guarded against, by taking care, in every instance, to keep the belly of the fœtus close to the external parts of the mother. And if these simple precautions be but kept in view, and diligently acted upon, an atonic state of the uterus would scarcely ever be met with. Uterine atony arises from previous excitement and overaction; moderate that action, and the power of the organ will be preserved, and its state of inertia almost unknown.

"But if, notwithstanding an attention to these precautions, inversion of the uterus shall have taken place, it is desirable to effect its restoration at once, and consequently it is highly important to become early acquainted with the existence of the disease; and as this can always be ascertained satisfactorily by the most simple means, it is extraordinary that a precautionary measure of this kind should ever be forgotten. *It has often happened, that the death of the patient has taken place from hæmorrhage, and the cause has never been discovered, till on examination post mortem, the uterus was found inverted in the vagina. In every instance, therefore, after the delivery of the placenta, one or more fingers of the operator should be introduced into the vagina, in order to ascertain that the uterus is not inverted.* If this simple process were attended to, chronic inversion of the uterus would be known only by description."

When by misconduct or mishap this accident of inversio uteri have taken place, the best mode of operating its reduction is the next question to be determined on; if the placenta still adhere to the protruded mass, some authors have recommended its removal prior to any attempt at reduction, upon the ground that such removal would, by diminishing the bulk of the inverted fundus, facilitate the return of the womb to its

natural position. Our author, however, justly condemns this advice, and urges the necessity of the reduction of the placenta, together with the uterus, properly remarking, that "thus returning the placenta while it remains attached to the womb, and its subsequent judicious treatment as a simple retained placenta, will have a good effect in bringing on that regular and natural uterine contraction which is the hope of the practitioner, and the safety of the patient." Mr. Newnham is right too in counselling the operator not to have recourse to any mechanical or intermediate contrivances, but to trust to the cautious introduction of the hand, well smeared with some fatty substance, and its *gentle* and judicious employment. If the accident be, as it ought to be, ascertained immediately, no time must be lost in attempting the reduction in question; but if from its having existed some time prior to discovery, or from other causes, there appear to be a tense and inflammatory state of the protruded parts so as to render their return difficult, it will be advisable, first, "to reduce the inflammatory action by bleeding, according to the circumstances of the patient, by warm fomentations to the abdomen, by the local warm bath, or by soothing injections; by keeping the bowels gently open, and by an appropriate diet of barley water, water gruel, &c. And when this first indication has been accomplished, then attempt to re-invert the uterus."

But if both this first, and if we may so say, second opportunity of effecting the reduction be permitted to pass by, the case becomes established as one of chronic inversion of the uterus; and then all treatment, excepting that of excision, will be merely palliative. In this state of things it will be of course expedient to remove and obviate as much as possible every source of irritation; to keep the bowels and the urinary bladder constantly evacuated; to pay great attention to the preservation of cleanliness in the parts; to use gently astringent lotions; and to employ pessaries according to circumstances. But none of these remedies can lay claim to any radical or specific effect; and now, therefore, the great question presents itself, is the practitioner justified in hazarding the operation of removing the inverted womb? The recent accounts from France of sections of portions of the womb, as well as operations of a more remote period, together with successful instances of the Cæsarian section, and cases of recovery from rupture of the uterus, are cited by our author for the purpose of proving that this organ may be subjected to considerable violence and irritation without producing fatal symptoms: and having so far established this assumption by the aid of accredited testimony, he proceeds to its more com-

plete confirmation by detailing the history of a case in which the uterus was extirpated by himself with complete success. The case, as the title of the book states, was one of inversio uteri: it followed upon a natural labour, in which the funis was remarkably short, and the placenta adherent; much hæmorrhage succeeded to its removal; a retention of urine supervened; *but no examination, per vaginam, was made for several days,* and it was regarded by the practitioner in attendance as a tumor which had been growing for some time, until Dr. Davis was requested to see the patient, who immediately ascertained both its nature and its source. Under these circumstances she went into the country, and became a patient of Mr. Newnham; and he, "fully assured that existence could not be protracted another month, if something were not effectually tried for relief, and well acquainted with the fact, that portions of uteri, if not the entire uterus, had been removed successfully, resolved upon the operation. On the 13th of April, Mr. N. applied a ligature of very strong silk, as high as possible upon the neck of the tumor, taking care to avoid including any part of the os uteri, by carrying the silk considerably within its orifice." On the next day the ligature was tightened, and again on the 15th; but Mr. Oke, who acted in conjunction with Mr. Newnham, having visited the patient about five o'clock in the afternoon of this day, and finding her in much pain, slackened the ligature; and it was suffered to remain thus slackened till the 18th, when the surgeons, "confirmed in their opinion of the practicability of removing the tumor, and of the nature of the disturbance, as arising rather from *spasm and uterine irritation than from visceral inflammation,* agreed to tighten the ligature," which was borne exceedingly well; and thus did they daily continue to tighten the ligature, and to give opiates and cathartics according to circumstances, until the 6th day of May, on which day the statement appears as follows:—6th. No pain since the last report. Our patient's health is a little improving. When the ligature was tightened this evening the tumor became detached, and I found, to my no small satisfaction, that it was as I had believed, an inverted uterus*.

This woman is now living and doing well, and in a letter from Dr. Davis, which Mr. N. inserts in his tract, and which bears the date of March 10, 1818, we meet with the following expressions respecting her present condition. "She is a

* It may seem extraordinary that there could have been any doubts on this head after the examination and decision of Dr. Davis; but of that decision Mr. N. was not apprized till after the operation had been performed.—Rev.

living evidence of the general fact of what has been done for her. I was most keenly disappointed, when she refused me permission to examine her the other day. I saw one of her mammæ in a state of fine health and plumpness; and she assured me, (and I have not the smallest doubt of the fact, from the earnestness of her manner, and the apparent sincerity of her character,) that the privileges of matrimony are as gratifying to her at the present moment, as during any period of her married life. I presume that she may still be in possession of ovaria."

Mr. Newnham, aware that a single case, however successful, is not sufficient to establish a rule, proceeds, in the subsequent sections of his work, more particularly to point out authorities for extirpating the womb, to detail the consequences which, sooner or later, must almost inevitably result from permitting the inversion to remain without any radical remedy, and to urge that the extirpation of polypi, which all agree to be desirable, is as likely to be followed by unfavourable results as the excision of the uterus itself. But, in the first place, he makes a few observations on the uncertain marks of distinction between an actual inversion of the organ and polypous excrescences from its internal surface. It is well known to those who are at all conversant with these subjects, that the form of the tumor, polypus being broad at its base, and attached by a narrow pedenicle, the degree of sensibility which it displays, polypus being comparatively with the uterus without sensation, and the smooth and polished surface of the former, compared with the rough and irregular circumference of the latter, are the main points of diagnosis, as stated by authors: that these, however, and all others are, occasionally, fallacious, is sufficiently evident, from the fact that the most discerning and experienced are sometimes at a loss to determine upon the actual nature of the protruded substance; and the previous history and circumstances of the patient are, after all, for the most part, the surest guides to discrimination between the one and the other disease. In order to prove this uncertainty, we have, as before hinted, a vast mass of evidence, both from British and Foreign professors, to mention even the names and opinions of whom would be quite inconsistent with our limits.

"On the whole, therefore, (concludes Mr. N.) we infer the difficulty and uncertainty of the diagnosis; and we proceed to consider the consequences of inversio uteri."

These are, briefly, when the disorder has become chronic, that "the female, for the most part, either drags on a miserable existence for a number of years, or her life is cut short by the constant drain." The immediate consequences are likely to be a sudden dissolution, from the attendant hæmor-

rhage. It is now, then, that we are naturally made acquainted with the authorities in favour of the operation: which, however, at the best, are rather of an equivocal cast, and in one of the most accredited of the continental publications we meet with the following sceptical inference in relation to the particular under discussion. "These alleged cases of extirpation of inverted wombs were doubtless, in the majority of cases, mere excisions of polypi*."

"But, (says our author,) in opposition to these doubtful conclusions, *the removal of so large a portion of the uterus as the preparation exhibits; in a young woman; during the menstruating part of her life,* and *while the uterine vessels were constantly pouring out a very large secretion; scarcely three months from the time of her delivery; and in a subject the most irritable and unfavourable for such an operation, must attach a greater degree of credibility to some of the previous histories of similar success;* must dissipate every doubt as to the *practicability* of such an operation; and most prove at least that in such an otherwise hopeless state, the surgeon is justified in attempting to afford permanent relief."

The subsequent section of Mr. Newnham's book, as before stated, consists in an endeavour to show that the extirpation of mere polypus is as likely to be attended with unpleasant consequences, as uterine extirpation, under favourable circumstances; and he finally aims at proving that there can be no fear of extra uterine conception in cases where the uterus has been taken out, and the ovaria left entire, since the sympathetic theory of conception, advocated by Dr. Haighton, and which, if correct, might lead to such apprehension, although ingenious, is not true. This last portion of Mr. N.'s treatise is throughout well written, and the opposition to Dr. Haighton's assumptions, ably maintained.

So much for the book before us. It will be recollected by some of our readers, that, having announced our intention of analyzing this tract, some months since, we stated afterwards our reasons for delaying to fulfil such engagement. The fact is, that we were desirous to await the issue of another case, the termination of which, both from its nature, and the high character of the professional gentlemen concerned in it, would, we felt aware, either prove greatly in favour, or argue substantially against the several inferences of Mr. Newnham. That we did not do amiss in thus deferring the review, every reader will allow, after a perusal of the subjoined document; the publication of which will prove rather an advertisement

* We have been favoured by Mr. Chevalier with the sight of a preparation which consists both of the uterus and the vagina, and which parts were extirpated by him, and the patient did well. We believe that the particulars of this case are recorded in one of the numbers of the Philosophical Transactions.—Rev.

than an anticipation of the more detailed account which the writer has engaged to give in another work.

" In reply to your note of Friday, I have the pleasure of informing you that our patient is doing well. I have promised to draw up the case, accompanied by a few practical remarks, for the next publication of the Medico-Chirurgical Society. In the meantime, I can have no objection to your referring to it in any way that may serve to illustratrate your review of Mr. Newnham's Tract.

" Mrs. Senior, of No. 16, Crescent, Somers' Town, was taken in labour of her third child, on the 7th of May, and was attended by a general practitioner, of many years' standing in his profession. The child presented naturally, and was expelled by the uterine efforts. The umbilical cord, however, was coiled round its neck twice; and from being thus shortened, it was put upon the stretch during the expulsion of the body, which became a cause of profuse hæmorrhage immediately after delivery. Upon examination for the placenta, it was found in the vagina, and removed without violence; but with very little abatement of the flooding. The inversion of the uterus, the real cause of the excessive discharge, was not, however, discovered till the third day after delivery, when the nature of the accident was recognized by my friend, Dr. Sims, who was then (10th of May,) consulted on the occasion. On the evening of the same day, at his suggestion, I was requested to meet him in consultation. The patient appeared at that time in a state of extreme exhaustion; her life was not worth twenty hours' purchase. In such a state, and so recently after delivery, she was obviously not a proper subject for an operation of any kind. We therefore agreed to recommend such a plan of treatment, and such a regimen, as appeared calculated to improve strength, and to replenish the system; and in case of her surviving the immediate effects of the accident, which was then extremely doubtful, we proposed, at some future and more seasonable opportunity, so far to entertain the question of extirpation, as to give it our best consideration. After this time, our patient suffered no considerable loss of blood, and she gradually recovered some little strength.

" In about seven weeks after the delivery, we met in consultation again. She then complained of a violent pain of the right inferior extremity, from the hip down to the foot. This pain was more or less constant and acute: it was, indeed, so distressing to her, that she seldom slept more than an hour (sometimes an hour and a half,) in the four and twenty. It was manifestly a cause of great irritation to her; and as it was not unreasonable to conjecture that it might depend upon the uterine displacement, we felt some hesitation in proposing, even now, any measure which might have the effect of greatly increasing it. We therefore proposed to wait a few weeks longer, in hopes that this extraordinary pain, which, however, was without tumour or redness, would wear itself out; promising that we would meet again in the course of a month to consider of something further for her relief. But before three weeks were expired, we were requested to see our patient again, and urgently solicited to think of, or do any thing that might have even a chance of diminishing her sufferings.

" After guarding the event by a very cautious prognosis, and transferring a part of the responsibility to the parties more immediately interested, we came to the conclusion of attempting the removal of the inverted uterus by ligature. Being prepared with the necessary apparatus for this purpose, I applied it during this visit, in the presence of Dr. Sims, and Mr. ——, the ordinary medical attendant of the family. This was on the 22d of July. During a great part of the process of extirpation, the pressure of the ligature occasioned extreme pain, and was accompanied by much constitutional irritation. The weather at the time was very hot, and bowel complaints, from that cause, universally prevalent, and our patient suffered exceedingly from an urgent diarrhœa. She was disturbed in this way every hour, and sometimes more frequently, for several days together. Having simply referred to this coincidence of the season, I confess that I am myself more disposed to attribute the great disturbance in the functions of the intestines in this case, to the action of the ligature, than to the high temperature of the atmosphere. However that may be, the effect was truly alarming, as our patient was brought by it into a state of imminent danger. During the earlier part of the process, no formidable symptom occurred; during the latter eight or nine days, the constitutional reaction was very great indeed; pulse ranging for several days between 140—156.

" On the 8th of August I found the ligature disengaged, and the tumour loose: pulse 108.

" During the action of the ligature, the pain of the foot, as the patient expressed herself, was numbed. This provoking pain has, however, harassed her a good deal since the extirpation of the womb. It is, however, gradually subsiding, and the patient is daily gaining strength. Upon the whole, I am of opinion that the removal of the human womb is a very serious operation; not to be attempted in any circumstances; and, in fact, not to be considered as safe, excepting in most judicious and cautious hands. The particular facts of the case of Mrs. Senior, when given in detail, will develope some difficulties and dangers to be apprehended, (and of course, if possible, to be avoided,) which have not appeared to come in the way of Mr. Newnham.

" If, then, I were asked, whether the human uterus, in a state of inversion, could be removed without risk, in any favourable circumstances? I should find it difficult to give a confident answer. On the other hand, I should not feel much hesitation, or fear to engage in the operation again in favourable circumstances. Moreover, I think that, in a case of increasing exhaustion from periodical losses of blood, or from a high degree of irritation, on account of the uterine displacement, the result of these two cases will leave no choice of duty on the part of the practitioner. This duty, however, would not devolve upon any practitioner; but exclusively on the competent; as the recovery of the patient would mainly depend on the constitutional treatment, and on the daily conduct of the local process, with a constant reference to the constitutional symptoms. " I am,

" Your's faithfully,

" D. D. DAVIS."

29, George Street, Hanover Square,
Sept. 13, 1818.

II.

A Succinct Account of the Contagious Fever of this Country, exemplified in the Epidemic now prevailing in London; with the appropriate Method of Treatment as practised in the House of Recovery. To which are added, Observations on the Nature and Properties of Contagion, tending to correct the Popular Notions on this Subject, and pointing out the Means of Prevention. By THOMAS BATEMAN, M.D. F.L.S. &c. Physician to the Public Dispensary; and Consulting Physician to the Fever Institution in London.

THE perusal of this volume has disappointed our expectations. True it is, that we were not taught by its title page to look for much; but when a physician, who, for a series of years, has been officially connected with an institution exclusively devoted to one form of disease, publishes a treatise expressly on such disease, it is natural enough to presume he has something to communicate beyond the ordinary routine of mere book-making matter.

It is in vain, however, that we search the work before us for comprehensive views, for scientific distinctions, for philosophical rationale; and in the section on contagion, from which the reader *is* directed to expect something, we actually meet with nothing further in the way of information, than what has been repeatedly detailed, and even copied in the diurnal prints from Currie, and Haygarth, downwards.

All, however, we must allow, is not quite so jejune and common-place; and, indeed, we were particularly pleased with that portion of the volume which is devoted to the discussion of the treatment of fever. Here Dr. Bateman's readers will find themselves engaged with the calm, the candid, the discerning physician, who is evidently anxious, not for the fate of theory, but for the welfare of his patients; who is determined to follow freely the guidance of good sense, and to pass by prejudice, in order to bow to experience.

In the introductory chapter of the present work, our author remarks:

"The fever which I am about to describe, has arisen, like its predecessors, in a season of scarcity among that portion of the community who principally suffer under such a calamity, and whose situation and habits contribute to the nurture and propagation of the infection thus generated.

"That deficiency of nutriment is the principal source of epidemic fever, and that the circumstances just alluded to operate only as accessories in fostering and multiplying it, will scarcely admit of dispute."

In our minds, however, that assumption is extremely

questionable, which attributes the origin of epidemic fevers, in so sweeping a manner, to defective nutriment: that famine very powerfully predisposes to these affections, is sufficiently obvious; and that scarcity is not seldom their actually exciting source, is, perhaps, an admissible presumption; but the visitation of these epidemics, is, in many instances, demonstrably independent on every thing that is palpable to the senses, and must be referred to a something which has hitherto eluded the ken of science; and which something is named an epidemic constitution of the atmosphere. Even the late fevers of the metropolis did not make their appearance at the time when suffering from scarcity was at its height; but they broke out with the greatest virulence in the year subsequent to that, in which large numbers of our manufacturing community fell into unexpected and deplorable poverty. From whatever source an epidemic may originate, it certainly, however, becomes contagious in its continuance; and although the laws and limits of the communicable properties of fever are still involved in considerable obscurity, we have quite evidence enough to prove that one individual affected with the disease will impart it to another, by the direct communication to the second person of a miasm or virus. And here we should have expected from Dr. Bateman some interesting discussion respecting the identity or difference of the poison creative of fever; some correction of the looseness of language which still obtains, in reference to the designation of fevers; some proposal as to a satisfactory distinction of their kinds and degrees; and some attempt, at least, to settle the question, whether the application of cold, disorders of the first passages, mental affections, and other causes of deranged actions in the system, are capable, *in se*, of bringing the affected individual precisely into that condition of morbid being, that is effected by the influence of either atmospheric poison, or generated virus. Again, whether this something from the atmosphere is the same in essence when plague, as when typhus is the result, and whether, therefore, it be fair to presume, that we are preserved from plague by modern improvements in our polity and habits, or, inasmuch as the precise constitution of the atmosphere creative of plague has never been present since that form of fever was known in the British metropolis. These, we repeat, are the proper subjects of inquiry, in a book professing to throw light on the nature of contagion, and the causes of fever; and they are inquiries of high and universal interest, even allowing that inferences from them are not capable of being drawn beyond the extent of presumptive evidence.

In treating of the "characters and varieties of the London

fever," Dr. Bateman adopts the division of Dr. Armstrong, into that of simple, in which no organ of the body is particularly deranged, and inflammatory, in the course of which one or more of the important organs becomes signally diseased; these, however, are rather states, than properly varieties; and, as we have elsewhere hinted, we think the language of medicine ought, as much as possible, to be freed from that kind of expression which would lead the student to conceive he can generalize and classify, not, we would say, merely with the same accuracy, but even upon the same principles, as in objects of natural history. We, for our parts, should be for expunging, if possible, the very words genera, species, and varieties, as words, in application to interior conditions, absolutely without meaning. Were our nomenclature, indeed, always drawn from ascertained causes, we then might divide and subdivide in this artificial manner, according to the various degrees of intensity in which such cause was acting; but when we apply the same fixed language to the momentarily varying condition of actual disease, we find ourselves ever *at fault*. Beside that, the very enunciation of the diseased state is founded upon hypothetical assumption. In the instance, for example, before us, Dr. Armstrong, Dr. Percival, and Dr. Bateman *suppose* a state of parts, which another modern physician, of acknowledged ability, does not admit can have place; the very essence and origin of fever being, according to Dr. Clutterbuck, an *inflamed organ*. Our author himself, indeed, stops at the second division of Dr. Armstrong, and hesitates to admit the "congestive" form of fever as a variety, because it is of "an hypothetical character."

The following we extract as a well drawn up account of the general appearance that the fever assumed in Dr. Bateman's patients, during the summer months:

"In a few cases the disease came on gradually, the patient feeling himself feeble and inactive, with a weariness upon slight exertion, loss of appetite, and depression of spirits, and a frequent sense of creeping and chilliness, especially down the back; yet continuing to go about his business for a few days, before any urgent febrile symptoms appeared. In most cases, however, the attack has been marked by a more immediate depression of strength, with chilliness, often amounting to shivering, a sense of load and oppression about the præcordia, and total loss of appetite. These symptoms have been speedily followed, or actually accompanied, by headach, most commonly referred to the forehead, or occiput, and by severe aching pains in the loins and limbs, especially in the larger joints, which were much aggravated by every attempt to move. The skin now became hot and dry, without any disposition to perspiration; the pulse rising in frequency, commonly to 100 or 110, but varying from 86 or 90 beats to 130 in the minute. The tongue,

in many cases, was covered with a moderately thick, grey fur, rather clammy; in others it became extremely dry and parched, or glazed, and sometimes slightly tumid, but with very little appearance of fur, and of a dusky red, or yellowish hue, and sometimes brown. The thirst was generally considerable, and much complaint was made of the constant bad taste in the mouth, and the parched and heated condition of the fauces. The nights were generally passed without sleep, or with some of those disturbed and dreaming slumbers, in which the activity of the imagination so nearly equals the waking reverie; and there is so little actual repose, or feeling of refreshment on waking, that the individual is unconscious of having slept; but, in general, the patients were free from delirium, even during the night. The bowels have commonly been disposed to constipation in the beginning, but have generally continued free afterwards, with little more assistance than the common saline mixture afforded.

"With these moderate symptoms, the fever has usually proceeded, in nearly two thirds of the patients who have been under my observation, to the end of the second and third weeks; a few being convalescent on the 7th, 8th, or 9th days; more attaining that state about the 12th or 14th; and still more going on to the end of the third week, and some even into a fourth, before they could be pronounced free from febrile symptoms. After this, a week or more commonly elapsed before they regained sufficient strength to be dismissed from the hospital; so that the whole duration of the indisposition has, in many cases, extended to the fifth, and sometimes to the sixth week*. It should be observed, however, in estimating the duration of this fever, that it may probably be protracted considerably by the omission of proper treatment in the commencement; as the poor patients receive little assistance during the first few days, and are seldom sent to the House of Recovery before the 6th day of the fever, most of them in the second week; and many so late as the 12th, and 14th, or 15th days from the commencement of their illness.

"The symptoms continue, during the periods just mentioned, commonly with little variation, and subside gradually; though, in a few instances, the pains have been suddenly relieved after a spontaneous perspiration, or the use of a purgative. The headach has not appeared to be so distressing, at least it has not been so much the subject of complaint, as the pains of the limbs, and not in general of the same duration. It had sometimes entirely subsided in patients brought in after

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* To give a more distinct view of the proportion of cases, which have extended to these different periods respectively, I may state, that of 100 cases, taken in succession from my journal, 37 were *convalescent* between the 7th and 14th days, 36 between the 14th and 21st, and 21 between the 21st and 30th: and that 41 were dismissed *cured* in the fourth week, *i. e.* between the 21st and 30th days; and 22 between the 30th and 40th; 5 even remaining beyond that period; and only 12 being discharged between the 14th and 20th, and 11 before the 14th day from the commencement of the fever; 8 having died, 5 on the 20th day.

the seventh day, especially if they had been purged or bled, while the aching of the limbs remained severe. After the headach had ceased, or had been much alleviated, the head has still, however, been the seat of distressing sensations; such as loud and disturbing *tinnitus*, or *vertigo*, and a sense of weight, or load, or of increased bulk, the head seeming "as large as two," in the language of the patient.

"The pain in the limbs and back, but especially in the former, has been the most constant attendant upon this fever. It has always begun with the headach, or preceded it; has sometimes existed without it; and commonly continued after that had ceased. It has been the subject of the loudest complaints, and the occasion of much moaning. It is variously described by different individuals; sometimes as an aching in all the bones, sometimes as a soreness of the flesh, as if the person had been beaten; is often said to be fixed in the joints, especially the large joints, as the knees and shoulders; and occasionally, as a painful stiffness and immobility of the limbs. It is always said to be much increased by attempts to move; and, in a few cases, only felt when these attempts are made. The entire sleeplessness, or imperfect slumber, during this period, is usually ascribed to the continuance of these pains; but it occurs equally, when the pain is moderate and only felt on motion; and is, probably, the consequence of the disturbed state of the circulation in the sensorium. The depression of strength in the muscles is coeval with these pains, and usually ceases with them; so that the patient, who had previously felt himself scarcely able to turn in his bed, finding his recumbent position irksome, will get up, and move about, suffering that debility only, which is left by want of rest and nourishment, and by the exhaustion of vital power, consequent upon all excessive action of the nervous and arterial system."

Our author acquaints us, that he has never been able to trace a decided connexion between the appearances exhibited by the tongue and the state of the *primæ viæ*, and we were pleased to find this remark, convinced as we are, that since the gastric notions have grown so much into vogue, this index of stomach condition is too indiscriminately assumed as an exact one; and we feel fully persuaded with Dr. B. that such appearances of the tongue "are often more distinctly indicative of the state of the sensorial power" than the condition of the first passages. "Deafness, (says Dr. B.,) was not an unfrequent concomitant of the fever, under all its forms; it occurred in 65 cases." He tells us, moreover, that the vulgar opinion of its being a favourable symptom, is not an unfounded one; and he adds, that the milder modification of the disease, such as above described, with a few exceptions of old and worn out individuals, invariably almost did well. Relapses occurred often "from incautious exposure to air, or the premature use of animal food," as well as in some cases from the want of nourishment and other comforts during the debility

of convalescence. These were generally not more severe than the previous fever, but occasionally proved fatal.

When the fever exhibited a more violent form, Dr. B. says, that the symptoms were nearly the same as those described in Dr. Huxham's well known account of what that author calls "the slow nervous fever," in all irregularities in the balance of circulation, "contributed materially to modify its forms, as well as the treatment to be adopted for its cure."

"At various periods of the disease, sometimes on the second or third day, more frequently in the second week, or still later towards the close of the fever, some of the important organs of the body become more particularly disturbed in their functions, manifesting signs of a greater determination of blood, or of a certain degree of inflammatory action. The brain and the organs of respiration appear to be most liable to this partial injury; but not unfrequently the intestinal canal, the liver, the peritonæum, the tonsils, the trachea, and even the bladder, suffer in a similar manner."

When treating on the ratio of deaths in the Fever Institution of the metropolis, compared with reports from similar establishments in Ireland, Dr. Bateman endeavours to show that the latter have had an advantage over the former in receiving a greater number of mild cases; and "also a large majority of their patients at an earlier period of the disease." All considerations taken into account "would bring (he says) the proportion of deaths to one in nineteen, which approximates to the higher ratio of the late Irish Reports; and the excess of which I apprehend is explicable upon the grounds just stated."

The following are Dr. Bateman's remarks respecting appearances discoverable after death:—

"I have few observations to offer relative to the morbid appearances left by fever, as ascertained by dissection after death. Many circumstances have concurred to render such examinations inconvenient or impracticable during the prevalence of the present epidemic: so that only one investigation of that sort has been instituted, at the special request of a medical friend, in a well marked case of this disease, characterized by great prostration of strength, a black mouth, muttering, and subsultus. The only changes which were observed on inspecting the brain, were a slight effusion under the arachnoid membrane, and an apparent increase of the number of bleeding points, on making a transverse section of the cerebrum: no other appearance, different from those observed after death, in many cases where no contagious fever had occurred, could be detected, and all the other viscera exhibited a natural character. In the course of former years I have from time to time examined the state of the principal organs in persons who had died in the House of Recovery. In cases like the preceding, the appearances have always been nearly similar. There has generally been a more decided effusion between the external tunics

of the brain, in one instance the serum amounting to about five ounces; and there has generally been some appearance of opacity, and also partial adhesions of the same membranes, and more appearance of turgescence in their vessels. The substance of the brain also exhibited the same appearance of many bleeding points, and occasionally appeared to be rather firmer than natural, in one case even forty hours after death, when the abdominal organs were far advanced in a state of putrefaction. In two cases, in which symptoms of pneumonic inflammation accompanied the fever, strong adhesions were found between the duplicatures of the pleura, and the substance of the lungs was firm and solid, when cut into, presenting an appearance more like that of the liver. In one case in which the fever went on to a considerable length without any material disturbance of the sensorial functions, but with a relaxed state of bowels, great disrelish for nutriment, restlessness, and quick pulse, with partial flushes on the countenance, small ulcerations with slightly elevated edges were found in the villous coat of the small intestines, the eye being directed to their situation by the appearance of brownish stains in the peritoneal coat, to which the ulcerations had penetrated. In two other cases, indeed, of the character first mentioned, in which the functions of the sensorium were principally disturbed, and no symptom of unusual derangement in those of the bowels had appeared, except a very offensive condition of the motions, ulcerations were also found in the villous coat of the small intestines, but without any elevated margin. Is it possible, that such appearances in the internal lining of the bowels may be produced after death by putrefaction, or by the action of their acrid contents?"

It is, as before observed, on the subject of the treatment of fever, that our author shines in the brightest colours; not that there is any thing even in this department of the book of novelty or particular interest, but that good sense, a sound judgment, a practical acumen, and a freedom from the trammels of the schools are throughout the whole of this section especially conspicuous. Free ventilation, and a strict attention to cleanliness, it is hardly necessary to say, are recommended; and the prompt evacuation of the stomach and bowels is insisted upon as a cardinal point in the early stages of all fevers. Emetics are spoken of at this time, and under these circumstances, with commendation; and we were glad to find that their use was thus lauded, since it appears to us that we are rather inclining in the present day to the depreciation or neglect of the plan of endeavouring "to equalize the circulation and determine to the surface," by thus emptying the contents of the stomach. Of cold effusion Dr. Bateman expresses his sentiments in much the same way as Dr. Armstrong: indeed the feeling appears to be obtaining pretty generally among medical men, that "this remedy has certainly not been found to answer the high expectations that

were excited in regard to its efficacy by its able author." Cold ablution, however, of the face, arms, and trunk, or sponging with cold water, " with or without the addition of a little vinegar," may be beneficially employed at all stages of the fever, provided the skin be hot and dry. Of the efficacy and propriety of blood-letting, Dr. Batemen tells us he is daily more and more convinced, and he prefers taking a quantity at once from a vein in the arm to local depletion by cupping or leeches.

" Few opportunities (he tells us) occur among the patients of the House of Recovery, of employing this remedy before the sixth day; but several patients had been bled previous to their admission; in all of whom the headach had been removed, or greatly relieved, by the venesection; and though the fever could not be said to be cut short at once, it was always abridged in its duration, and exhibited no unfavourable symptoms during its course. One patient, a girl, whom I directed to be bled after the sixth day, having a very acute headach, exclaimed at my visit on the following morning, that she 'had not had an ache or a pain since the bleeding.' I lately witnessed the complete and immediate extinction of the fever in two cases, not in the House of Recovery, by a single blood-letting: the one performed on the fourth, and the other on the fifth day. The head in both was considerably affected with threatening delirium; but the pain and intellectual disturbance were instantaneously removed; and the patients left their beds in two days. In one of these patients, an attack, marked by precisely the same symptoms, had occurred three years ago, which was not arrested by a free cupping; but the fever went on with severity, and terminated with a formidable derangement of the intellectual functions, and a tedious recovery.

" The power of this remedy, at this period of the fever, cannot, I think, be questioned by those who have witnessed its effects; but in such cases it is important to ascertain the circumstances under which it may be necessary to employ it. It is true, that a great majority of the cases of fever, which require our assistance, will pass safely through their course with the ordinary treatment by emetics, purgatives, the saline draught, and cool drinks; and that, in fact, the early symptoms do not in many cases, where the subsequent fever is severe, differ very materially from those which assume a less violent character; the dangerous symptoms in the former cases frequently appearing so late as the ninth, tenth, or eleventh days. It seems to me, however, that if on the third or fourth day the headach is acute; or if, without severe headach, there is much watchfulness, a hurry of thought and rapidity of speech, and an unusual sensibility to light, especially if the pulse be 110 or 120; such symptoms mark a condition of the sensorium bordering on inflammatory action; and that blood-letting is the most prompt and effectual mode of anticipating the morbid changes which are likely to follow, and which sometimes come on so suddenly as to inflict an irremediable injury on that delicate organ the brain. This often occurs even by the ninth or tenth

day, or sooner; and it too often happens, that no alarm is taken till this unconquerable evil is already produced."

The bowels, Dr. B. says, should be regularly evacuated daily, or on every alternate day, by means of calomel, with a little jalap or rhubarb, or the sulphate of magnesia; but of the combination of calomel and opium, in the way recommended by Dr. Armstrong, we find no mention. The application of cloths, wetted with cold evaporating fluids, (water with a little æther,) to the shaven scalp, appears, our author says, to be an expedient more effectual in controlling the circulation within the head, than any mode of local blood-letting; and he has seen, he tells us, tranquillity and sleep succeed to delirium and great restlessness in the course of a few hours under this cooling process. Blisters to the neck are also spoken of in favourable terms; the saline draught is recommended, but antimony and opium are both condemned as either inert or pernicious. Even in the advanced stages of fever, our author forbids the use of wine and cordials, notwithstanding the seeming debility, while "*the tongue remains parched, the skin dry, and the pulse* 120, *with the slightest perceptible sharpness in the beat.*"

"There is one condition of fever, however, in which wine and similar stimuli are essentially necessary to the recovery of the patient, and in which they should be used with a liberal though cautious hand: I mean a state of sudden collapse, which occurs principally, but not exclusively, in patients past the meridian of life; and the symptoms of which are sufficiently unequivocal to be distinguished by an attentive observer. The increase of languor and actual debility is very manifest, and is much complained of by the patients; the sense of faintness and sinking, and the oppressive labour of breathing, being extremely distressing. In general they lie supine and motionless; but in one instance, in a middle-aged man brought to the House of Recovery at the end of the third week of fever, this state of collapse commenced with a slight picking of the bed-clothes. The most remarkable circumstances, however, indicating this condition, are observed in the state of the skin, pulse, and tongue. The skin becomes cool or cold, and generally damp, having a relaxed, chill, and clammy feel, not to be mistaken for the constricted and parched state of the surface, even when cool, connected with irritation, as before described. The tongue, though previously brown and dry, becomes moist, yet remains loaded; and the pulse generally increases in frequency, but is so feeble in its beat as to give rather the impression of undulation than of a stroke.

"These symptoms, then, the failing strength and sinking spirits, the cold and clammy sweats, the laborious respiration, and the feeble wavering pulse, so clearly indicative of the failure of the vital powers, obviously demand a different treatment; and unless stimulants are duly supplied, the patient sinks in no long time. Several o the worn-

out paupers, sent to the House of Recovery during the present epidemic, perished, as I have already stated, in this manner: yet some of them, by means of a liberal supply of wine, and cordial medicines, struggled through very untoward circumstances to recovery. One old woman, with a large gangrene on the sacrum, and an ulcer on the arm, sent in cold and almost senseless, was roused and preserved by these means, especially by a few glasses of gin, which she preferred to wine. In general, however, less than a pint of wine in the twenty-four hours, given in small divided portions frequently, was sufficient for this purpose. Indeed, considerable caution is requisite in the regulation of stimulants under any circumstances, but more especially when the previous depression has been very great. As soon as the full benefit of the stimulation has been obtained, and particularly if any indications of returning excitement are manifest, the stimulants should be immediately diminished, or altogether withdrawn."

With respect to the local affections of organs that occur in typhus, Dr. Bateman tells us that, with the exception of phrenitic inflammation, they appear to him to partake more of venous congestion than those which attack the same organs, unaccompanied by typhoid fever, and in some cases of this kind he recommends the application of leeches over the affected viscus rather than venesection, particularly in the later stages of the fever. "As to the management during the state of convalescence, little can be said, for little is necessary to be done." — "The returning power in the digestive organs is in danger of being impeded rather than promoted by the interference of tonic medicines; and it is only after the more severe attacks of the disease, when the constitution recruits more slowly, that aromatic bitters, such as Cascarilla and Columbo are required, which are preferable, in Dr. B's opinion, to the Cinchona bark. It is only (he says) in the lingering debility, occasioned by gangrenous ulceration, sloughing sores, or slow suppuration, that the Cinchona becomes a valuable remedy."

On the head of contagion there is really nothing worthy of notice, excepting one position which appears to us to involve a dangerous error. We are told, in page 151, "that the matter of contagion, to be rendered communicable, must be condensed and accumulated in a confined and unchanged atmosphere." Now, although this accumulation indubitably imparts an increase of virulence and power to the fomites of fever, in proportion to the extent to which it is allowed to take place, it is as evident that direct and immediate exhalations from the sick, provided there is a sufficient approximation or actual contact of another person, are equal to infecting such person even when the most minute attention shall have been paid to cleanliness and ventilation. When, some years since, several

students of medicine, at Edinburgh, were attacked with the infirmary fever, it was not because there was a want of vigilance in the managers of the Infirmary with regard to the preventives of infection; but because the individuals who became infected exposed themselves, without apprehension, and without reserve, to the actual exhalations from the patients. In this case then there was no accumulation or condensation of the poison. We allow that the virus is very soon indeed rendered inert by the atmosphere, and that "infection cannot be conveyed certainly not more than three feet, probably not more than as many inches," by means of the air; but this position is a very different thing, both in point of fact and in reference to its practical bearings, from that which Dr. Bateman has been led incautiously to make.

In concluding our analysis of the present volume, we may be expected to say a few words on the style in which it is written. As, however, we cannot conscientiously advance much on this head in the way of commendation, so neither is it our wish to urge any thing in the way of censure; convinced as we are that a man may be a very good physician, and even a very respectable writer, without possessing the power of charming his reader by a combination of correctness and grace in composition. And after all, perhaps, men who are somewhat prosing and plodding, provided they have honesty and good sense, are more useful members of the medical profession than those of brilliant capacity. If the one sometimes put you to sleep, the others are likely to mislead you, and of the two evils the first is the least.

III.

Remarks on Burns and Scalds, chiefly in reference to the Principle of Treatment at the Time of their Infliction; suggested by a Perusal of the last Edition of an Essay on Burns, by Edward Kentish, M.D. By Nodes Dickinson, of the Royal College of Surgeons, Staff-Surgeon to His Majesty's Forces, &c. &c.

This small volume may, in our opinion, be regarded as the most satisfactory examination of Dr. Kentish's Essay on Burns that has hitherto appeared. Although there is reason to believe that the use of stimulants in burns and scalds, as recommended in that work, especially with regard to the internal treatment of these injuries, has been seldom followed to the unwarrantable extent which *the theory* of Dr. K. requires: still the work itself is so well known, that it becomes important to point out the errors it contains, which might otherwise lead astray the young practitioner, who flies, in the first

case of difficulty, to what are called "the best authorities." We think, however, as Mr. Dickinson seems also to think, that Dr. K. is likely to mislead the inexperienced not so much by his practice as by his theory. It might, indeed, be expected that an erroneous principle would unavoidably draw after it practical evils; yet the theory and the practice of Dr. K. are greatly at variance with each other, and, however strange it may appear, we are inclined to attribute, with Mr. D., to this very contradiction the successful issue of many of the severest cases related in the "Essay on Burns."

The opinions of Dr. K. on the nature and treatment of burns he considers, with some little satisfaction to himself, to be "diametrically opposite to the directions of every medical author, both ancient and modern." Few authors had written expressly upon a subject which so well deserved a distinct consideration; and to Dr. K. certainly belongs the praise of having first called the particular attention of his brethren to this class of injuries. By Heister, Van Swieten, Boerhaave, Mr. B. Bell, and the writers generally who preceded Dr. K., a burn had been regarded as *an inflammation;* and the common principles of inflammation had been considered applicable to this. Dr. K. ventures to "deny that a burn is an inflammation." It is this difference of opinion which forms one of the most striking peculiarities of his doctrine. If a burn be not an inflammation, it would, perhaps, be difficult to say under what head it is to be arranged by the nosologist. The pain, the heat, the redness which arises from the greater quantities of blood instantly derived to the capillary vessels of the part; the effusion of serum which flows from an increased action of the exhalant arteries; the febrile state of the system, marked by the pulse and the tongue, and proportioned to the degree of injury: these are the changes which we observe at the time of the infliction of these injuries; and if their further progress be traced through its different stages, we see in the injured parts all the intermediate conditions which fill up the interval between the simplest inflammation and the most dangerous gangrene, and in the constitution every shade between the first febrile excitement and the most formidable symptoms of typhus and of synocha. If it were not too uncharitable, one might be almost induced to conjecture that Dr. K., unable to account for the beneficial effects which resulted from the application of turpentine, on the antiquated notion that a burn was an inflammation, discovered that the easiest solution of the difficulty would be to question the truth of this opinion, and to substitute, if possible, a new doctrine, which might be better suited to explain the action of his favourite remedy.

It is doubtful also whether the same cause did not prejudice the judgment of Dr. K. against the use of cold applications. In all probability it appeared to him irreconcilable that the same injury should be relieved by a stimulating application, (as he considered turpentine to be), and a sedative one, like cold water; nor did it seem possible to establish the pre-eminent efficacy of the one, without first shaking the confidence, which from authority or observation, some were inclined to place in the other. However this may be, in the Essay on Burns the use of cold applications is strongly condemned: they are spoken of as not merely useless, but injurious; and we are guarded against "the danger of attempting to cure burns and scalds by the application of cold."

Mr. D., in the thirty-eighth and following pages of the volume before us, has cited a great number of respectable authorities in favour not of the safety only, but the usefulness of cold applications; and as it appears that the cases related by Dr. K., with the view of deterring us from the employment of these means, rather confirm than destroy the opinions he controverts; it may not be improper to give Mr. D.'s own words:—

"Having repeatedly witnessed the safety of cold applications to burns and scalds, I am desirous to bring the subject fully under the reader's review: and I am hence led to recur to certain cases cited by Dr. K., in his Essay on Burns, from different writers, to 'point out to us the *danger* of attempting to cure burns and scalds by the application of cold.'

"In the interesting case of Miss Phillips, (Monthly Magazine, August, 1816,) the leading points which demand attention are these:—

"1st. The immediate inflammation was reduced by cold applications within three hours.

"2d. The convulsions, which commenced in eighteen hours, terminated fatally in forty-eight hours from the time of the accident.

"3d. Miss Phillips was under seven years of age. That which led to the fatal termination, by the supervention of convulsions, was, in the opinion of the narrator of the case, 'an irretrievable indifference to the state of the stomach and bowels.'

"4th. The immediate inflammation was reduced by cold: but one of the cold applications is stated to have been '*goulard.*'

"Unfortunately we are not informed of the precise nature and extent of the local inquiry; of obvious necessity in comparing or contrasting cases with a view to arrive at accurate conclusions. The 'previous florid health' of the interesting sufferer, together with the 'violent excitement produced by the stimulus of the scalding water,' as expressed by Dr. K.; and the 'irretrievable indifference to the state of the stomach and bowels,' as mentioned by the narrator of the case, would be sufficient to induce me to refer the catastrophe to inflammation of the brain, and to entertain serious apprehensions from the

neglect of *general antiphlogistic measures*, were it not also proper to consider how much of the mischief was due to the application of goulard."

Whether much of the mischief is to be attributed, in Miss Phillips's case, to the preparation of lead, may be a matter of doubt; although there have been cases, some of which Mr. D. has adduced, which prove that goulard is sometimes absorbed from the surface so as to produce its poisonous effect on the system. Dr. Percival cites three instances from his correspondent, Dr. Small, and " details a very interesting case of scald, in which the patient was greatly relieved by the application of goulard water; but the constitution suffered by violent colic, trembling of the limbs, continual nausea, and frequent vomitings."—(See Duncan's Med. Com. vol. iii.)

The next case to which Dr. Kentish adverts is that of Mr. Ernasle. It is difficult to imagine in what manner this case could be deemed serviceable to the object of Dr. K., since it was expressly adduced in " La Médecine Eclairée par les Sciences Physiques," to show " that the mere renewal of cold water is one of the *most precious* means we are acquainted with;" for " on the evening of the same day (although the scald was a severe one) the patient walked about without suffering any pain." But as the cold water happened to be instantly applied, Dr. K. denies that " the morbid action occasioned by heat had taken place," although the cuticle peeled off some days after; and although there is in reality no appreciable interval of time between the accident and " the morbid action" it produces.

Another case is transcribed in the Essay on Burns from Richerand, which terminated fatally, and in which cold water was applied; " but, perhaps, the reader (says Mr. D.) will concur in the opinion, that as ' the entire surface of the body was roasted from the head to the feet,' such case must have been hopeless under any treatment."

The cases quoted by Dr. K. from Sir James Earle, in the opinion of Mr. D,—

" Present us with evidence that is unquestionable in itself, and favourable to the opinion entertained of the efficacy of cold applications. In the *first* it is stated, that ' cold water being found to give ease, was constantly renewed.' In the next case ' ice was applied, which, appearing to give *immediate* ease, was continued.'

" The *third* case was that of Sir James Earle's child: ' ice was applied, and he got *immediate* ease; but as soon as the ice was melted, which was at first in a short time, the pain returned, and he cried out for more.'

" The *fourth* case was of great severity, ' nearly half the body was scorched, and there was one continued burn, which made a surface

by measurement of more than four hundred inches.'—'The burnt parts were covered as soon as possible with powdered ice and ice water, from which she found *immediate* ease.'"

The remaining case is equally favourable.

"These (says Mr. D.) are the cases related in the Essay on Burns, in which cold applications were used. These, however, in addition to the evidence of the several other authorities cited, (p. 38,) and the result of considerable experience, afford to my mind so strong a proof both of the safety and efficacy of cold applications to burns and scalds, 'where the action of parts is alone increased,' as to oblige me to give the refrigerant plan of external treatment my fullest assent, and therefore to recommend it to the consideration of the reader as peculiarly deserving his attention."

The principal argument which Dr. K. urges against the use of cold arises out of a comparison on which he strongly insists, between the treatment of frost-bite and burn. Without extracting the words of Dr. K., it may be sufficient to state the reasoning, which is, that if it is unsafe suddenly to apply heat to frost-bitten parts, (which it unquestionably is,) then the sudden application of cold to burnt or scalded parts is unsafe also. There is so much truth as well as acuteness in the observations of Mr. D. on this reasoning, that we regret our limits do not allow us to insert the whole passage. We agree with him that there is nothing to apprehend from the "instantaneous reduction of *morbidly* increased heat and action, which is at all analogous to the exhaustion in frost-bite, produced by the sudden application of the stimulus of heat to a part rendered torpid by previous cold."

Again. "Whenever a burn or scald does terminate in mortification, it must take place from exhaustion of the powers of the system produced by previous violent excitement."—"The fatal issue in burns and scalds never results from the application of refrigerant and sedative means employed to reduce the morbidly augmented heat and sensibility of the injured part: it results, on the contrary, either from the misapplication of stimulants, which continue the increase of heat and vital action produced by the irritation of the burn; or from withholding the employment of measures that would be efficient for their reduction."

Since Dr. K., contrary to the medical authorities who preceded him, maintains that a burn is not an inflammation, we are curious to learn what, in his mind, is the real condition of the body after the infliction of these injuries. There is, to use his own language, "a disparity of action between the injured part and the rest of the system." This sentence comprises the whole theory, and the practical rule derived from it is comprehended in that which follows. "The mode of relief will,

therefore, be to restore the unity of action, by gradually diminishing the increased action of the part, and by increasing the general action of the system." If it be asked "in what manner the general action of the system is to be increased?" the answer is, "by throwing the heart and arteries into the most violent action compatible with life." In speaking of this strange theory, Mr. D. inquires—

"What proof is there that such disparity exists? and, if it does, why is such a disparity injurious? It is so erroneous to suppose that the imaginary destruction of this equilibrium produces the ill effects spoken of, that in reality they are produced by the very unison which is instantly established between the action of the system and of the injured part, occasioned by the immediate sympathizing of the constitution. When the injury produces increased action of the part, if the example be one of much severity, the general system will sympathize; the action of the heart will be augmented, and synocha will result.

"If the injury be still more violent, the irritation will be so great as to exhaust the powers of the system generally; and mortification of the part will very probably ensue."

Could we here enter upon a minute detail of the constitutional symptoms which distinguish and accompany the varying states of the local injury, it would be then seen how strictly correct is the foregoing remark of Mr. D., that the ill effects are, in reality, produced by the very unison which Dr. K. wishes to establish by such violent means. When the local injury is severe, and yet "within the limits of increased action," the symptoms are "a shivering, succeeded by heat; increased action of the heart; thirst; white tongue; high coloured urine; constipation of the bowels; sometimes hurried respiration; headach; *phrenitis; coma.* In a word, to adopt the language of nosologists, it is *cauma* or *synocha,* arising in the system from topical inflammation."

And again, when a burn or scald is particularly severe, there often ensues a sudden exhaustion of the vital power. The symptoms then are "continued shivering, small and frequent pulse, great debility, and the mortification of parts involved in the injury, which were not, at first, destroyed by the actual contact of the injurious caloric."

The want of union, therefore, which Dr. K. has imagined, does not exist; no equilibrium requires to be restored; and the disease we have to combat, so far from consisting in such a disparity, depends, in a great degree, on the parity (if such a phrase be permitted) which is presently established between the suffering part and the sympathizing constitution.

The theory of Dr. K. is still more closely examined in a more advanced part of this volume, p. 60 and 61, where may be discovered the fallacy of an assumption which Dr. K. has

employed to illustrate his principle. We can quote only the conclusion of Mr. D.'s remarks :—

" The relation in which the injured part is placed, with respect to the general system, is explicitly this :—The topical action is increased by the direct stimulus of heat: in this effect the rest of the system participates: and such participation is evinced by the accelerated circulation, and increased sensibility—by the state of the pulse, urine, tongue, &c. The indication is not to raise the action of the rest of the system to that of the part—not to excite fever in the whole body, because there is inflammation in a part—not to quicken the action of the heart, and all the arterial system, because a few vessels have been excited, but to reduce the local excitement to that of the general system, when the injury is so slight as not to communicate its effects throughout; and if the system at large should participate, then both must be brought down to the measure of health."

The theory of Dr. K. is, indeed, according to our views, so gratuitous ; his illustrations of it are so fanciful ; his reasoning upon it is so little in conformity with any acknowledged principles of physiology, or pathology, that it would be unnecessary to dwell on it so long, but that the errors of the practice he recommends, and the inconsistency of his own treatment of some of the severest cases he details, with the rule he lays down for others, could not, otherwise, be so well understood.

Mr. D. does not indiscriminately condemn the stimulant practice of Dr. K. ; he does not deny the beneficial effects of turpentine, externally applied, although he ascribes to it virtues inferior to those of some other remedies, and explains its operation upon a different principle, he does not deny that, in the constitutional treatment, there are examples which require a stimulant plan ; (never, however, so vigorous as that which Dr. K. advises for even slight cases,) but then he is very careful to distinguish these examples from those in which the antiphlogistic plan is absolutely required. What he insists on with much judgment is, that in burns and scalds, " a difference in the degree at length amounts to a difference in kind." If there should be an apparent obscurity in this mode of expression, his meaning becomes very manifest in different parts of the volume before us. As long as the local injury is one of " increased action" only, the constitutional symptoms are those of excitement only. To the local injuries, in these cases, applications are necessary *which either possess the lowest temperature on the one hand, or produce the speediest evaporation on the other ;* and the internal treatment must consist in the use of antiphlogistic means, proportioned to the violence of the symptoms. But should the consequence of the injury be more severe :—

" If, from sudden and inordinately increased excitement, exhaustion of the symptoms should supervene to excess of action ; if cold shiver-

ing should continue long, with tremor, weak pulse, and other indications of the diminution of vital energy, a different state of things presents itself to our consideration; in which, should we not always possess the ability to support the powers of life by anodynes and cordials, the principle of treatment, as directed to those degrees of injury where 'action alone is increased,' will, in the example now in contemplation, most assuredly not apply. Antiphlogistic and depletory means would only reduce the remaining powers of life, the recovery of which presents to us, both in this and in analogous cases, the greatest difficulty that art or experience can overcome.

"In this state of exhaustion, recourse must be had, without delay, to measures of a moderately stimulant agency, directed both to the local injury, and the general system. Tepid water, with an addition of alcohol—warm essence of turpentine, followed by a dressing of warm digestive ointment, or warm cataplasms of bread and milk, are applications proper for the occasion; while opium should be administered internally, in a sufficient quantity to relieve pain; a cordial to support the depressed energy of the nervous system, and nourishment to maintain the strength. But moderation must be considered the golden rule. We must accurately measure the danger of suffering a sudden loss of vital power, from temporary exhaustion, with the risk of incurring a dangerous reaction by immoderate excitation."

It is the example of debility following an excess of action, which Mr. D. intends to designate, when he says that "a difference of degree at length amounts to a difference of kind." The importance of this distinction must be acknowledged, when it is considered that the remedies to be employed in this case are diametrically opposite to those which must be resorted to in the case of excitement only. This discrimination forms no part of the division of Dr. K., who classes burns and scalds:—

"1. Injuries from caloric, where the action of parts is alone increased.

"2. Injuries from caloric, where the action of parts is increased, and the organization of some other parts destroyed."

It cannot but be seen that the omission is an essential defect in the division of Dr. Kentish.

In no example of burn or scald is the use of "*the most powerful stimuli*" beneficial. Indeed, when we are instructed by Dr. K. to "throw the heart and arteries into the most violent action compatible with life," in order that there may be infinitely less disparity of action between the part excited by the burn, and the general system," we are almost inclined to ascribe his violence rather to the habit of using a language somewhat overcharged, than to any deliberate intention of inculcating what Mr. D. terms, not inappropriately, such "fiery tenets."

It is a singular truth, that of all the cases related in the

Essay on Burns, in support of the success of the new plan of treatment, there are two only in which the internal stimulant plan was carried into full effect; one of them fatal on the 12th day, and the cure of the other prolonged to twelve months. This will be seen by referring to the abstracts and analogies which Mr. D. has presented, at the close of his volume, of all the cases detailed in the Essay on Burns; a task which he has performed with as much candour as penetration. Dr. K. first pursued the antiphlogistic plan, and relates an unsuccessful case in which it was employed, as an example of what the old treatment consisted in. But whoever reads this case, (that of John Thompson, p. 72,) will concur with Mr. D., that the means were too inefficient to deserve the name of antiphlogistic. "Bleeding was not employed. The purgative exhibition was confined to one dose of salts, and an enema. During four days nitrous powders were given." Nay, more stimuli were actually administered in this case than in some of those who were treated on that new system, for which the antiphlogistic plan had been eagerly abandoned. See the case of Mr. Hopper, p. 117.

The first case which Dr. K. treated upon the new system was that of John Clarke*. The injury appears to have been less severe than Thompson's. Clarke, however, died on the 12th day, while Thompson died on the 9th. And yet it was from Clarke's case, and from another (†Thomas Johnson's) in which the stimulant practice was pursued, (consisting of laudanum, a cordial anodyne julep, and strong Port wine negus,) but which was not cured till the end of twelve months: it was from these cases, that "a foundation was laid for a general rule of practice." These cases "showed me, (says Dr. K.) "the errors of all systematic writers on this subject, up to the time when I first wrote my Essay," and which helped me to "lay down principles for the treatment of all such cases in future."

It is not, we believe, venturing too far to say, that the majority of the other cases detailed in the Essay on Burns justify the remark made in the beginning of this review, that the most successful cases treated by Dr. K. are those in which he swerved from his own rule of practice. They were cases of extreme severity, in which "a difference in degree had amounted to a difference in kind," in which exhaustion had succeeded to excessive action; and Dr. K. treated them not with powerful means, "capable of raising the action of the heart and arteries "to the most violent degree compatible with life;" but with mild and moderate stimulants, inter-

* See p. 80 of Mr. D.'s Remarks, &c. † Ibid. p. 85.

posing a judicious use of purgative medicines. Dr. Kentish, says Mr. D., it appears to me, did not succeed when he pursued his *first* practice, because it was not the antiphlogistic treatment, which he afterwards so much condemned. In the case selected to show the ill effect of the antiphlogistic plan, that plan was carried to a very insufficient extent. The patient appears to have died from the inordinate general excitement, accompanied by cerebral inflammation.

"In his subsequent experience, (continues Mr. D.) Dr. Kentish was successful in a much greater degree; because, according to my view, the practice was simply anodyne, and *moderately* stimulant. In the case to which the excitative treatment was applied to the fullest extent, the patient died with symptoms strictly analogous to those which characterized the example last recurred to; while in those cases in which the stimulant exhibition was more sparingly employed, the patients recovered, although this salutary moderation was in direct opposition to the fiery tenets of the theory."

With regard to the external use of sp. of turpentine, and the diversity of apparently incongruous applications, aqueous and spirituous, hot and cold, which perplex the choice of the young practitioner, Mr. D. admits them all to be beneficial, (though their degree of efficacy varies,) and refers their good effects to a common principle:—

"One circumstance is essential to the success of their remedial character; namely, that the application be of a less degree of temperature than the injured parts to which it is applied; or, that the application possess the property of conducting preternatural heat from the injured surface, by evaporation. Upon this relation depends the common principle of their action*."

Those injuries, the nature and treatment of which, Mr. D. has, in our minds, so correctly and forcibly unfolded in the course of his remarks, are too sudden, too distressing, and often too fatal, not to interest the feelings, as well as exercise the understanding of the surgeon. The principles of his treatment should be prepared for an immediate application. We cannot, therefore, but express our obligations to the author of the volume before us, for having contributed so much to settle these principles by the judgment and discrimination which are displayed in his work.

We admire, at the same time, his deportment as a critic.

* If, indeed, it could be proved that spirits of turpentine, as a local application to recent burns, actually possesses a superiority over other materials, the explanation of such fact, Dr. K. has, in our minds, failed to give; and it would remain as a simple result of observation, inexplicable upon any known principles in pathology. But has this fact been established?—Rev.

A spirit of manly ingenuousness pervades the whole of the treatise, which is creditable in the highest degree to its author: and it is not at all tinctured by any apparent desire to obtain undue advantage over his opponent. Mr. Dickinson writes like a man of integrity and science, and our readers will perceive, by the extracts we have made, that he occasionally displays a very considerable mastery of language; if in this last respect we have any objection to him as an author, it is that he is too fond of repeating his recapitulations. The plan of summing up in an aphoristic manner, at the end of sections, the general substance of the preceding pages, is so far from being censurable, that it is highly commendable; and writers, we think, would do well to adopt the practice more generally and systematically than they usually do; but in Mr. D.'s tract there is really too much of it; and this constant inforcing and re-inforcing of his positions and inferences, carries with it an air of distrust, not only of his own powers, but of his reader's penetration; of both which, on the contrary, we have so high an opinion, as to anticipate a very favourable reception of the work we have thus done our best to analyze.

PART III.

SELECTIONS.

On the Electric Properties of Metals, and the absolute Positive and Negative Electric Powers of various Substances. By Mr. J. Tatum.

To prove that *metals* possess *all* the electric properties with which vitreous and resinous bodies are endowed, nothing but friction is necessary, when their positive and negative properties will be elicited, and to as great an extent as is produced by the above bodies.

Exp. 1. Let a plate of zinc, (of about two inches diameter,) provided with an insulating handle rising from its centre, be quickly drawn over a piece of silk, and on presenting it to an electrometer, it will be found to produce strong signs of *positive* electricity.

Exp. 2. But if a plate of silver of the same size be subject to friction on silk, (or, what is better, on fur, for then I have had it produce a spark, which could be both heard and seen,) it will produce signs of *negative* electricity.

From these experiments, we see that both positive aud nega-

tive electricity are produced from *metallic* bodies, and by the same means with which they are produced from vitreous and resinous substances.

That positive and negative electricity is not peculiar to any particular body, but depends on the greater or less attraction which the rubber posseses for the electric fluid, will, I think, be evident from the following experiments.

Exp. 3. If in the place of *silk*, on which the plate of zinc was rubbed, we substitute *fur*, the plate of zinc will now give signs of *negative* electricity.

Exp. 4. And if we draw white silk over black silk, we shall find the white betray signs of *positive* electricity, and the black negative electricity.

Exp. 5. But if the same *white silk* be drawn over fur, it will now give signs of *negative* electricity.

Exp. 6. If yellow silk be drawn over the white silk, the yellow will be *negatively* electrified, and the white positively electrified.

Exp. 7. But if the *yellow* be drawn over the black, the yellow will now become *positively* electrified.

From the above experiments, we see that the same body may be made to produce either positive or negative electricity at pleasure; and that *metallic* bodies, like vitreous and resinous ones, will, by similar treatment, like them, produce similar states of electricity.

From which, I think it is but fair to conclude, that the classing of bodies into electrics and *non*-electrics, as well as into positive and negative electrics, is founded in error, and at variance with experiments.

P. S.—The silk which I used was wrapped several times round a thin board, about one foot three inches long, and five inches wide, with a handle similar to a battledore.

(*From the Philosophical Magazine.*)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PATHOLOGY AND PRACTICE OF MEDICINE.

Chronic affections of the intestinal canal, whether we regard the extreme frequency of their occurrence, the insidious mode of their invasion and progress, or the common fatality of their termination, possess an especial claim to the

attention of the enlightened pathologist. Frequently, while the superficial practitioner is officiously employed in combatting a fallacious train of nervous and spasmodic symptoms, chronic inflammation, with slow but steady pace, extends its ravages uncontrolled, or, perhaps, even aggravated by the stimulation of tonic remedies, in the intestinal tube. And the establishment of fatal ulceration, or incurable stricture, at last opens the eyes of the unwary medical adviser, to the irretrievable error into which he has been deluded. Cases of this unfortunate nature, we have more than once witnessed. The reflections which they are calculated to excite, will form no inappropriate prelude to some "*cases of intestinal ulceration,*" by Dr. Cloquet*, which we are about to introduce to the notice of our readers.

The first case is curious, both from the nature of the intestinal lesion, and from the disease of the brain with which it was complicated. A plethoric man, aged 72, was afflicted, in 1810, with extreme tardiness of motion, and unconquerable propensity to sleep. In January, 1812, uneasiness in the bowels was followed by copious diarrhœa, and severe griping, which bade defiance to all the ordinary remedies. And such was the increase of appetite, that he ate animal substances, and particularly raw sausages, with voracity; but frequently fell asleep during his repast. In May, violent headach, indefinite as to its precise seat, came on; the powers of speech and hearing were impaired; and the hands were incessantly directed towards the head; the eyes were fixed; the face flushed; the pulse full, frequent, somewhat irregular; respiration embarrassed; and the fœces passed involuntarily. Violent delirium, with loud screaming, came on towards night: and profuse nasal hæmorrhage was produced by the blows which the patient inflicted on himself. Its cessation was marked by insensibility to all external impressions. The use of the muriatic acid pediluvium, and application of blisters to the legs were succeeded by a tranquil night. On the morrow, the patient answered the questions addressed to him, and was sensible of his approaching end. He complained of his head and legs. The abdomen was tumid, but free from pain; and the blistered surfaces inflamed. On the sixth day of the attack, his symptoms recurred: he became motionless, and fell into constant reverie. The lips were convulsed; the jaws locked; and deglutition was impeded. Death took place, without a struggle, on the tenth day.

DISSECTION.

Cranium.—The dura mater adhered loosely to the bones.

* *Nouveau Journal de Médecine.* Tome Premier.

The vessels were injected; the brain firm, and of a bright yellow colour; and the ventricles distended by yellow limpid serum. The two posterior thirds of the inferior portion of the right hemisphere were occupied by a soft, fluctuating, ovoid tumour, which projected at the base of the brain, and had caused adhesion of its arachnoid membrane to the tentorium cerebelli. The puncture of it gave issue to about eight ounces of white, inodorous, cream-like fluid. The parietes of this cavity were evidently formed by the cerebral substance itself, somewhat indurated. The circumjacent capillary vessels were loaded; but there was no adventitious membrane, as in cases of apoplexy of old standing.

Thorax.—The right lung was adherent to the parietes of the chest; the heart pale, flaccid, and loaded with fat; the arch of the aorta dilated, and covered with osseous concretions.

The abdomen contained two pints of limpid serum. The fibrous membrane of the spleen exhibited numerous thick, prominent, rugous patches of beautifully white cartilage. The gall bladder, with some healthy bile, contained a great quantity of small, black, soft calculi. The convolutions of the small intestine exhibited some points of adhesion, and several blackish detached specks. Its middle portion was inseparably connected with the termination of the descending colon; and on examination, their cavities were found to communicate by a large orifice, fourteen lines by five in diameter; its border thickened, hard, ulcerated, and furnished with loose fimbriæ, which were equally capable of being directed into the cavity of the colon and ileum, and evidently opposed no obstacle to the passage of the fœces in either direction. The inferior part of the small intestine below the fistulous orifice was contracted, as were also the cœcum, and portion of the colon above. The blackish specks, covering the surface of the intestines, and by which the adhesions, described above, had particularly taken place, corresponded with ulcerations in the mucous and muscular membranes. These ulcers had a circular figure with elevated margins; their bottom grey, uneven, and covered with mucus. The other organs were sound. No information could be acquired respecting the commencement of the cerebral affection. Neither side of the patient had, during life, been more affected than the other, with loss of sensibility, and convulsion; and it is rendered probable, from the deficiency of an adventitious membrane, that the cerebral collection of fluid was not the consequence of sanguinous effusion.

It may, moreover, be remarked, that by the curious communication which, in this case, existed between the ileum and colon, and the unobstructed passage of the alimentary matter

from the former to the latter intestine, the patient was placed nearly in the situation of a person with artificial anus, and, consequently, that the process of nutrition must have been very considerably impaired. Thus, perhaps, may be explained the patient's voracious appetite, and its farther increase on the occurrence of the diarrhœa. It is to be regretted, that no light was thrown upon the deranged state of the intestinal functions, by a minute inspection of the discharges.

Communications between different portions of the intestinal canal, by the process of adhesion and ulceration, are not uncommon. They have repeatedly fallen under the observation of Dr. Cloquet. On examining the body of a female patient at *la Salpetrière*, Dr. Chomel found the duodenum communicating freely with the transverse colon by the medium of the gall bladder, which adhered to the two intestines, and had a wide opening at both extremities. Hence, in this case, the aliment might pass from the duodenum, through the gall bladder, into the colon.

In 1816, Dr. Cloquet exhibited to the medical society the body of a male, who had died at the age of 18, from peritonitis, consequent on the effusion of fœces into the abdomen, through ulcerated perforations of the intestines. Numerous and deep ulcerations were observed throughout the whole extent of the small intestine; the convolutions of which were connected, by adventitious membrane, into a mass covered by a layer of concrete albumen. So numerous were the orifices of communication established between the convolutions, that the intestinal mass might be compared to a sort of sponge. The contents of the intestines passed from one convolution to another freely, and in every direction. Upon the surface of the mass existed several perforations, through which the fœces had escaped into the abdomen; and hence had resulted the fatal peritonitis.

Accidents of this nature are not uncommon. Morgagni records an example of it in a dysenteric subject, (Epist. xxxi. Art. 2); and similar instances are exhibited by some of the succeeding cases of Dr. Cloquet, which will be duly noticed in our next Number.

SURGERY.

The following "*case of perforation of the œsophagus and thoracic aorta**," by a foreign body, is too remarkable to require

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* *Journal Universel des Sciences Médicales*, Mars, 1818.

any apology for its transcription, and too circumstantially narrated, to incur the slightest suspicion of inaccuracy.

A deserter, aged 28, on application for advice at the Brest hospital, exhibited the following symptoms, on the 6th of January last: general agitation; violent pain across the forehead; paleness of the face; foul tongue; abundant mucous expectoration; tumefaction of the tonsils; indefinite pains about the throat and thorax; disordered respiration; small and regular pulse, and costiveness. Questioned as to the probable origin of his complaints, he could report nothing satisfactory; but observed, with indifference, that he thought he had some days previously swallowed a piece of bone, which, however, had been since voided. He added, that he had always at this season of the year, suffered from violent pains in the throat. Deglutition was performed without much difficulty, and induced neither cough nor vomiting. Hence the affection was regarded as inflammation of the mucous membrane of the pharynx and trachea, complicated with gastric disturbance. Leeches were applied to the neck; an emetic was administered with advantage, and gum-water prescribed as a drink. On the morrow, the tonsils were more swollen, and a general sweat prevailed. *Mucilaginous drinks and fomentations; emollient glysters.* On the night of the second day, sleeplessness and dyspnœa. A *blister between the shoulders.*—4th. Some amendment; pulse better; respiration relieved. The patient, at his own request, took some good broth.—5th. Still better. Slight tumefaction of the left side of the neck. During the night, after having walked for some time about the ward, and complained to the nurse of his inquietude and melancholy presentiments, the man uttered an exclamation; voided by the mouth a stream of florid blood; and instantly expired.

DISSECTION.

Externally, well formed and plump. On dividing the integuments and platysma myoides on the left side of the throat, the sterno-mastoid, sterno-hyoid, and thyro-hyoid muscles were found covered with blackish fœtid blood, mixed with purulent matter. The jugular veins were empty and collapsed. The left common carotid artery was thrust outwards, in consequence of the distension of its surrounding cellular sheath with blood. In the left superior part of the chest, in the posterior mediastinum, was formed a cavity extending from the body of the last cervical to that of the fourth dorsal vertebra. It was filled by a purulent sanies; and at the bottom of it lay the fragment of a rib of beef, fifteen lines long and six broad, with pointed extremities, and weighing six-

teen grains. The superior portion of œsophagus, corresponding with the bodies of the third and fourth dorsal vertebræ, or, more strictly speaking, that part of the canal which deviates to the right to make room for the aorta, was opened longitudinally to the extent of nearly half an inch, but without effusion of alimentary substances or fluid into the thorax. The two superior thirds of the œsophagus exhibited traces of gangrenous inflammation in the internal membrane: and it implicated also the muscular structure of the canal, which was readily lacerable. Elsewhere the œsophagus was perfectly sound. That part of the thoracic aorta, which immediately succeeds the arch of the vessel, and assumes a vertical direction in order afterwards to deviate to the left, was opened anteriorly to the extent of three or four lines, and in a direction exactly parallel with the breach of the œsophagus. The piece of bone which had perforated the aorta was situated between that vessel and the œsophagus. There was a considerable extravasation of blood between the external and fibrous coats of the aorta*. On minutely examining the circumference of the orifice of the vessel, the external and middle membranes were found destroyed to a certain extent, by a kind of erosion. The internal membrane alone remained. Hence it was thought that the fragment of bone had only ruptured the artery in consequence of compression exercised upon it for some time. It was evidently through the opening of the œsophagus that the blood poured out from the aorta had escaped into the stomach. This organ contained an united mass of fibrine, weighing three pounds. On laying it open a quantity of serum escaped, resulting from the decomposition of the effused blood. The cavities of the heart were empty, and displayed, in common with the other internal organs, the appearances which characterize sudden death from profuse hæmorrhage.—The *reflections* of the writer of this case, Dr. Dubreuit, are destitute alike of interest and novelty. He confessedly, when first consulted by the patient, entertained no suspicion of the existence of a foreign body in the throat, as the source of the symptoms which he witnessed; and gives it as his opinion, that even had a certainty of their origin been, at that time, acquired, no surgical operation could have been had recourse to with advantage; as the portion of bone was then probably no longer within the œsophagus.

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* We have thus translated it, although the expression in the original (*entre la membrane et la tunique fibreuse de l'aorte*) is somewhat obscure.

MIDWIFERY.

Dr. Delisle has lately communicated to the *Société Médicale d'Emulation*, an interesting "case of extra-uterine pregnancy, terminating in the extraction of a living child by an incision of the vagina*;" of which we shall proceed to give a correct abstract.

A lady, aged thirty, and of delicate constitution, after having been some months married, exhibited, in November 1816, the symptoms of pregnancy in an unusually severe form, with violent pains in the hypogastrium and about the anus. They were relieved by the employment of anodynes; but, in December, recurred more than once with increased severity. The same remedies now failed of success. The employment of vermifuges, indicated by the expulsion of lumbrici, was unavailing: and a whitish and floculent discharge took place from the vagina. In January 1817, rending pains were felt in the whole hypogastrium, especially on the right side. The evacuation of urine and fœces was effected with difficulty. The abdomen was large, irregular, tender, and very tense, especially in the lower part. Appetite variable; obstinate sleeplessness; face pale and dejected; vaginal discharge continuing. On examination, a round, fleshy, elastic, immoveable tumour was found low down in the vagina, a little to the right, resting firmly on the lower part of the rectum, and filling a portion of the pelvic cavity. The cervix uteri, quite natural, was situated high up, in a vertical direction, immediately behind the pubis, some little to the left, and appeared to be continuous with the tumour, particularly towards the right; for the left could not be explored sufficiently high. The tumour was considered as inflammatory; and fomentations, glysters, and diluents were prescribed with transient relief. On the 22nd the discharge recurred, with severe hypogastric pains, which were relieved by the expulsion of some small coagula. On the 23d the vaginal tumour was sensibly increased, and descended below the level of the os tineæ; which was large, open, dry, immoveable, and continuous with the anterior part of the tumour. The posterior inferior part of the latter was felt by the finger introduced into the rectum. The evacuation of urine continued painful; and a small quantity only was discharged by the employment of a catheter. Retroversion of the uterns was now suspected to exist, complicated with pregnancy, but every effort at reduction was unavailing. On

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* *Bulletin de la Société Médicale d'Emulation*, Mai et Juin, 1818.

the 25th, debility and constant suffering without fever: the abdomen large and very painful, with a distressing sensation of very tight pressure around it. Puncture of the uterus was now determined on in the event of an aggravation of the symptoms; and the anodyne treatment, meanwhile, was continued. About ten days afterwards, a discharge of blood from the vagina took place, and was productive of some relief.

From this period till May, no decisive alteration was observed. The tumour continued to grow, and completely filled the pelvis. Leeches were once applied to the perineum with advantage: and purgative and vermifuge remedies were again tried in vain by the direction of another physician.

Dr. Delisle, again summoned on the 10th of May, found that the patient had, for three days, experienced pains in the abdomen and loins, resembling those of labour; and that a sac of water, as large as an egg, had been protruded from the vulva, whereupon a midwife had been sent for under an impression of pregnancy, farther confirmed by an evident sense of motion in the abdomen.

The woman was now in bed, very feeble and emaciated, with a dry cough, and tight respiration, effected almost exclusively by the abdominal muscles; small frequent pulse; dry burning skin, and flushed cheeks. Dry cough with fever, pain of the side, with bloody expectoration, which occurred some weeks before, had been succeeded by irregular shiverings: and hence the existence of an acute pulmonary affection, terminating in suppuration, was inferred. On examination, a pyriform tumour, of the volume of an egg, was found protruding from the vulva. It proved to be the cervix uteri, with part of the body tumified and elongated. Its orifice was slightly open. It descended in a direction somewhat from the left, and drew with it the canal of the urethra; the orifice of which was turned upwards. The reduction of these parts was readily effected; but they returned on the slightest effort. Through the parietes of the vagina, near its entrance, was felt a hard, round, somewhat unequal tumour, completely filling the cavity of the pelvis, and offering, by the projection of ribs and the posterior border of a scapula, the decided characters of one side of the thorax of a fœtus. During the examination, the woman at times experienced pains, and made efforts by which the tumour was pushed strongly downwards, and the uterus was more protruded, without, however, any change in its figure.

Convinced of the existence of an extra-uterine fœtus, and of the necessity of decisive measures in the present situation of the patient, Dr. Delisle determined on making an incision in the most prominent part of the vagina. This was effected,

in a crucial form, by a bistoury introduced between two fingers. A quantity of water, with a few drops of blood, escaped from the opening, which was now gradually dilated, and the left side of the thorax was found presenting. The two feet having been successively disengaged, the head followed with some difficulty; and thus a living female fœtus was extracted. It was well formed, but diminutive, and seemed to be the product of a six or seven months' pregnancy. The funis was very weak; the eyes open. The limbs moved freely about; and the infant uttered an acute and plaintive cry.

About fifteen minutes after delivery, trifling hæmorrhage came on, while the pulse gradually sunk, and the respiration became tight. The abdomen yet presented above the pubes a small globular tumor, apparently formed by the uterus. On the introduction of a finger along the funis, the placenta was found inserted to the right, and posteriorly, and so firmly attached as to menace the rupture of the chord in its separation. The hæmorrhage still continuing, the placenta was at length detached gradually and without much difficulty by the hand. It formed a hard and compact mass, with a kind of fleshy membrane, which presented a hollow at the place of insertion; and a smooth tumour of the volume of a small egg, a little above and posteriorly. On the extraction of the placenta, the hæmorrhage instantly ceased; but the hypogastrium still presented the tumour before-mentioned. Meanwhile the patient's respiration grew more and more embarrassed; the pulse sunk; extreme loss of strength ensued; and death took place after a quarter of an hour's struggle, without any recurrence of the hæmorrhage. The infant died in a few minutes after; having survived delivery three quarters of an hour. Permission to inspect the mother's body was refused. The partial success of this remarkable case would certainly justify the attempt at extrication of the fœtus under similar deplorable and otherwise hopeless circumstances of extra-uterine pregnancy.

CHEMISTRY.

Carbonet, a Spanish physician, has lately written "*a Memoir on the utility and abuse of the application of Chemistry to Medicine**." Without questioning the advantages which may result to medicine from chemical science, it is the author's object to show, that in the human body the chemical affinities are under the influence of the vital action; that they

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* *Memoria sobre el uso y abuso de la applicacion de la Quimia a la Medicina.*

are incapable of explaining the theory of the animal function, either in a natural or diseased state; and, consequently, that they can never serve as the base of a correct system of nosology.

They who have discovered in the reciprocal action of inorganic substances the cause of the phenomena exhibited by vitality, pretend that the structure of the various organs depends on the chemical combination of their elements; that in these combinations, and the decompositions subjected to chemical laws, should the causes be sought for which determine the mode of action of the different functions; that disease results from the excess or defect of chemical principles; that medicines act upon the animal economy by furnishing the deficient principle, or reducing that which is excessive: in fact, that man, whether in health or disease, is subjected, like inorganic matter, to the influence of chemical agents.

The memoir is divided into two parts. In the *first* is examined the pretended absolute influence of the affinities upon the animal functions in the state of health; and in the *second*, this influence in disorder of the functions, and with respect to the agents employed for their restoration to the natural condition.

The author begins by exposing the difference existing between the structure of organized and inorganic bodies, between mechanical forces, susceptible of calculation, and the vital, which come not within the pale of physical science. After examining each particular function, he proves, that for the explanation of its mode of action and the dependent phenomena, chemical affinities are wholly insufficient; confirming his arguments by observations drawn from the most celebrated European works on medicine and chemistry.

In the second part, it is incontestibly shown that, if the cause which produces vital alterations and the efficacy of remedies act in virtue of physical and chemical laws, such action is yet modified by the influence of vitality; and the results have no longer any relation with the laws to which inorganic matter is subjected.

Several sections compose this part. Dr. Carbonet adopts in its division the arrangement of the authors of the doctrine which he refutes. In the *first section*, he proves that the excess or defect of oxygenation suffices not to account for the symptoms of the diseases attributed to these causes; and that the pretended oxygenizing and dis-oxygenizing remedies produce not the effects attributed to them.* Camphor, ether,

* We have heard so much said of diseases resulting from "*deficiency of oxygen*" in the human system; and every trifle, clothed in

alcohol, and narcotics, are said to dispose the body to the loss of oxygen. Upon what grounds does this empty assumption repose?

In the *second section*, are reviewed the diseases ascribed to the excess or defect of caloric, and the means of effecting, or substracting from, its accumulation in the living body. Chemical physicians accord not respecting the diseases which ought to be comprised in this section: but, whatever be their number, the laws which determine the condensation of caloric in the inorganic, are not correctly applicable to organized bodies; and the increase or diminution of caloric in diseases should frequently be considered rather in the light of a symptom than a cause.

Diseases resulting from excess or defect of hydrogen, have, also, in the chemical system, their appropriate remedies. They are treated of in the *third section*. Now, as hydrogen frequently holds in solution sulphur, carbon, phosphorus, or water, such diseases are singularly complicated, from the mode of operation of these different compounds. All these substances exert an influence more or less pernicious; but is the result of this influence the same in different individuals? or how are we to explain the periodical character which many of the diseases referred to this section exhibit.

The *fourth section* comprehends those diseases occasioned by excess or defect of azote. Much of this gas is, doubtless, extricated during the putrefaction of animal substances: and no one can deny that azote alone, or holding other substances in solution, may exert a very pernicious effect on the animal economy: but chemistry furnishes numerous facts, quite inconsistent with the suppositions which the partizans of the medico-chemical theory are under the necessity of advancing.

In the *fifth* and *last class* are included those diseases which result from excess or defect of phosphorus; and the remedies considered applicable to this morbid state are exposed. Dr. Carbonet, however, proves that all the assertions upon which this division is erected, are utterly destitute of foundation, and consequently more unstable even than those which have served for the establishment of the preceding orders.

We cannot more appropriately terminate our hasty sketch

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the imposing garb of chemical science, has commonly such a fascinating power over the minds of young and inexperienced men, that we consider ourselves doing them a service in exposing the fallacies of this fashionable doctrine. The treatment of the diseases, attributed to this cause, by the mineral acids, as far as we have had an opportunity of appreciating its effects, has served only to confirm those inferences, which, to a mind zealous in the pursuit of truth, a review of the theory in question cannot fail to suggest.

of this memoir, calculated to inspire the hope that the state of medicine in Spain is not so degraded as it has been represented, than with the quotation which the enlightened Spaniard has selected as applicable to physicians of the chemical sect:

Agnoscat vanæ chimicus mendacia flammæ,
Nec totam ulterius medicinam quærat in igne.

P.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

SOCIETIES.

SOCIETY FOR THE ENCOURAGEMENT OF INDUSTRY IN FRANCE.—Prizes proposed for competition during 1819:

Chemical Arts.

For the fabrication of animal charcoal from other substances than bones, and by a process different from that employed for preparing Prussian blue.

The certainty that other animal matters besides bones, can be brought to yield charcoal of a good quality, is deduced from the knowledge of a very important fact furnished by the employment of the charcoal left in the fabrication of Prussian blue. This charcoal, when it has been prepared, possesses qualities infinitely superior to those of charcoal produced from bones, and it is known that it is furnished by other animal matters than bones, and is prepared by potash.

In the charcoal residue of Prussian blue, the whole, or nearly the whole, is charcoal; while in the charcoal from bones, there is scarcely more than a fifth of pure charcoal; the other four-fifths are formed of phosphate and carbonate of lime, matters altogether foreign to the action of charcoal.

From these considerations, the Society proposes a prize of two thousand francs to the person who shall communicate a certain and œconomical process for converting animal matters, other than bones, into a charcoal possessing all the qualities of charcoal from bones. The price of the charcoal thus obtained must not be greater than the present price of charcoal from bones, (ten centimes the pound).

For the fabrication of isinglass.

The Society offers a prize of two thousand francs to the person who will establish in France a manufacture of isinglass, of a quality which may stand competition with the isinglass of the north. To be awarded in July, 1819.

Royal Academy of Sciences and Belles Lettres of Brussels. — The following questions, with others, have been proposed by this Society for competition in the Class of Sciences during the year 1819: —

1st. Assuming that there is an identity between the forces which produce electrical, and those which produce galvanic phænomena; whence comes it that we do not find a perfect accordance between the first and the last?

2d. Many modern authors believe in the identity of chemical and galvanic forces: — Can the truth or falsity of this opinion be proved?

The prize offered for each of these questions is a gold medal of the weight of twenty-five ducats. The memoirs may be written in Latin, French, Dutch, or Flemish, and transmitted previous to the 1st of February, 1819, to the Secretary of the Academy, M. Van Hulthem.

Surrey Dispensary, Union Street, Southwark. — The Surrey Dispensary is open to the admission of Physicians' Pupils, who are entitled to attend the Medical Practice of the Institution, every day in the week, upon the following terms: —

For One Year ..... Twelve Guineas.
For Six Months ..... Eight Guineas.
For Three Months ..... Five Guineas.

For further particulars apply to Mr. Davis, Apothecary, at the Dispensary. — N. B. The Apothecary will describe to the Pupils the properties of Drugs and Chemicals, as well as the Botanical Characters of the Narcotic and other principal Plants used in Medicine.

NOTICES OF LECTURES.

Universal Dispensary for Children, St. Andrew's Hill, Doctors' Commons. — Dr. John B. Davis will commence his next Course of Lectures on that branch of the Practice of Medicine which relates to the Diseases and Medicinal Management of Children and Young Persons, early in the ensuing month, at the above Institution.

Mr. Taunton's Winter Course of Lectures on Anatomy, Physiology, Pathology, and Surgery, will commence on Saturday, October 3d, 1818, at eight o'clock in the evening.

Dr. Davis will commence his Winter Lectures on the Theory and Practice of Midwifery, and on the Diseases of Women and Children, at his House, 29, George Street, Hanover Square, on Monday the 5th of October, at half-past ten o'clock in the forenoon; and at Mr. Taunton's Theatre, Hatton Garden, on Tuesday, October the 6th, at six o'clock in the evening.

Dr. George Gregory and Dr. Cloves will begin their First Course of Lectures on the Theory and Practice of Physic, on Wednesday, October 7th, at nine o'clock in the morning, at No. 14, Old Burlington Street. The Lectures will be continued on Mondays, Wednesdays, and Fridays, at the same place and hour, and will terminate towards the middle or end of January. — Pupils are admitted to attend the Medical, Surgical, and Midwifery Practice of the St.

George's and St. James's Dispensary, No. 14, Old Burlington Street. The hours of attendance of the Medical Officers are between eleven and one in the forenoon every day, at which time they will be ready to give any further information on the subject that may be desired.

Mr. Mac Kenzie commences his next Course of Lectures on the Diseases and Operative Surgery of the Eye, on Monday, the 5th of October, at nine o'clock in the morning, and not at ten, as formerly advertised. Course continues for about two months, on Mondays, Wednesdays, and Fridays, at 16, Newman Street, Oxford Street.

Lectures on Epidemic Diseases, &c.—Dr. Charles Maclean, Lecturer on the Diseases of Hot Climates to the Honourable East India Company, will commence a Course of Lectures on Epidemic and Pestilential Diseases, and the Diseases of Hot Climates, on Monday, the 12th of October next, at eleven o'clock A.M., at No. 13, Pancras Lane, Bucklersbury.—Beside the usual Lectures on the Diseases of Hot Climates, given to the gentlemen annually appointed to the East India Company's Medical Establishment abroad, this Course will comprehend full Elucidations of the Medical Doctrines deduced by Dr. Maclean, from his Experiments upon the Plague of the Levant, respecting the Nature and Cure, and Cause and Prevention, of Epidemic and Pestilential Maladies; especially as involving the utility of abolishing Quarantines, Lazarettos, and other Establishments of Plague Police throughout the world, and of having recourse to a total change of system, in respect to the prevailing fever of these kingdoms.—Terms, to private Pupils, Three Guineas each Course.

Anatomy and Surgery.—The Lectures in the School of Great Windmill Street begin on the 1st of October, at two o'clock.

Lectures on Anatomy.—J. C. Carpue, F.R.S. will commence his Anatomical Lectures at his Theatre, No. 50, Dean Street, Soho, on Thursday, the 1st of October, 1818. The Structure of the Human Body will be explained, as also its Physiology.—The Operation of Surgery will be shown on the Dead Body.—Every day some part of the Human Body is demonstrated to the Pupils, who are required to demonstrate in their turn. This plan obliges Mr. C. to limit the number of his Pupils.—Myology is not taught till the Pupils are perfectly instructed in Osteology, &c.—A general examination takes place every tenth day; and if the Pupils do not perfectly recollect the parts that have been lectured on, they are again demonstrated.—The Dissecting-Room will be open from seven o'clock in the morning till five in the evening. The Pupils are here taught the Method of Operating, as also the Art of Injecting and making Preparations.—Three Courses are given every year.—Further particulars may be known by applying to Mr. Carpue, 72, Dean Street, Soho.

Medical School of St. Thomas's and Guy's Hospitals.—The usual Lectures at the adjoining Hospitals will be given as follows:—At St. Thomas, Anatomy and the Operations of Surgery, by Mr. Astley Cooper and Mr. Henry Cline. Principles and Practice of Surgery, by Mr. Astley Cooper.—At Guy's, Practice of Medicine, by Dr. Curry and Dr. Cholmeley. Chemistry, by Dr. Marcet. Experimental Philosophy, by Dr. Evans. Theory of Medicine, and

Materia Medica, by Dr. Curry and Dr. Cholmeley. Midwifery, and Diseases of Women and Children, by Dr. Haighton. Physiology, or Laws of the Animal Economy, by Dr. Haighton and Dr. Blundell. Structure and Diseases of the Teeth, by Mr. Bell.—A Course of Clinical Lectures will be given in the Winter by Dr. Marcet. And a Course of Practical Botany in the Spring by Mr. Salisbury, of the Botanic Garden, Chelsea.—N. B. These several Lectures, with those on Anatomy, and on the Principles and Practice of Surgery, given at the Theatre of St. Thomas's Hospital adjoining, are so arranged as not to interfere with each other in the hours of attendance, nor with the Medical or Surgical Practice of the Hospital: and the whole is calculated to form a Complete Course of Medical and Chirurgical Instruction.—Terms and other particulars may be learnt from Mr. Stocker, Apothecary to Guy's Hospital; who alone is empowered to receive entrance money from Pupils, for any of these Lectures delivered at Guy's Hospital.

LITERARY NOTICES.

Mr. Curtis, Aurist to his Royal Highness the Prince Regent, has just published a second edition of his Introductory Lecture to his Course on the Anatomy, Physiology, and Pathology of the Ear, as delivered at the Royal Dispensary for the Diseases of the Ear, in 1816.

In the press, and immediately will be published, in one volume 8vo., illustrated with plates, Pathological and Surgical Observations on Diseases of the Joints. By B. C. Brodie, F.R.S. Assistant Surgeon to St. George's Hospital, and Lecturer on Surgery.

Dr. Armstrong is preparing new editions, considerably improved, of his three works on Scarlet Fever, &c.; Typhus Fever; and Puerperal Fever.

Dr. Henry is printing a new and improved edition of his Elements of Chemistry.

Dr. Bostock will shortly publish the History and Present State of Galvanism.

In the press, and speedily will be published, a Practical Treatise on Tropical Dysentery, more particularly as it occurs in the East and West Indies, illustrated by Cases and Dissections. By R. W. Bamfield, late Surgeon of the Belliqueux and Warrier, ships of the line serving in the East and West Indies, and author of an Essay on Hemeralopia or Night Blindness.

In the press, and speedily will be published, the third edition, considerably enlarged, Pharmacologia; or the History of Medicinal Substances; especially as it regards their Chemical Habitudes and Relations; with a view to render the Art of Prescribing and of Composing Extemporaneous Formulæ less empirical and more successful, by the establishing it upon Fixed and Scientific Principles. Illustrated by Formulæ, in which the Intention of every Element is designated by Key Letters. By John Ayrton Paris, M.D., F.L.S., Fellow of the Royal College of Physicians, London; Member of the Royal Medical Society of Edinburgh, &c. &c.

A METEOROLOGICAL TABLE,

From the 21st of AUGUST to the 20th of SEPT. 1818,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Min.		Therm. Max	Min.	Rain. Gauge.	Winds.	Weather.
21	29	77	29	77	67	48	01	NW.NE.	1 Sun.. 3 Rain. 4 Cloud...
22	28	88	29	88	64	45		NNW.	1 Sun..
23	29	88	29	79	65	49		WNW.	124 Cloud.. 3 Sun..
24	29	73	29	70	70	49		WSW..	1 Cloud.. 2 Sun.
25	29	70	29	60	69	49	04	SW..	1 Sun.. 3 Cloud.. 4 Rain.
26	29	55	29	44	69	50		W..	1 Sun..
27	29	36	29	22	69	50		SW..	13 Cloud.. 2 Sun.. 4 Starl..
28	29	59	29	39	66	51		SW..W...	1 Cloud.. 2 Sun..
29	29	48	29	42	72	53	03	SW...	1 Sun... 2 Show.
30	29	61	29	55	64	46		SW...	1 Sun...
31	29	49	29	24	65	50		S.	1 Sun. 2 Sun...
1	29	25	29	10	67	48	47	SSE.SW.	1 Th..Lt..&R....2S.3R4St...
2	29	61	29	50	65	44	03	SW..	1 Sun.., 3 Rain. 4 Starl..
3	29	58	29	47	67	55	12	SW..	1 Sun.. 3 Cloud.. 4 Rain..
4	29	54	29	48	72	52		SW..SW...	1 Cloud... 2 R. 3 S.. 4 Cl..
5	29	45	29	34	70	52		SW..	1 Sun...
6	29	43	29	38	67	42	01	SW...	1 Sun.. 4 Rain. and Starl..
7	29	57	29	57	66	39		SW..	1 Sun...
8	29	52	29	47	62	38		W..	1 Sun..
9	29	54	29	51	62	38	01	NW..N..	1 Sun.. 4 Show. and Moon.
10	29	51	29	51	58	38		WNW..	1 Sun.. 3 Show. 4 Cloud..
11	29	66	29	61	58	38		WNW..	1 Sun.
12	29	85	29	79	63	44		NW..	1 Sun..
13	29	92	29	74	64	49		NW.WSW.	1 Sun...
14	29	50	29	36	68	49	07	SW...	1 Cloud.. 2 Showers.
15	29	20	29	16	60	40	12	S.SW..,	1 Sun., 3 Showers..
16	29	56	29	41	55	38		WNW..	1 Sun.. 3 Cloud..4 Moon....
17	29	77	29	72	61	41		W..SW..	1 Sun.... 2 Sun. 3 Cloud..
18	29	55	29	40	66	53	01	SEW..	1 Sun. 3 Rain. 4 Cloud...
19	29	32	29	31	68	54		S...	1 Sun. 3 Cloud,..
20	29	27	29	23	64	52	06	SE..	1 Cloud.. 2 Sun. 4 Rain.

The quantity of rain during the month of August was only 53-100ths.

Observations on Diseases at Richmond.

The disorders under treatment this period were Cholera morbus, and Diarrhœa, (which have been very prevalent,) Cynanche tonsillaris, Dyspepsia, Erysipelas, Febris continua, Hemiplegia, Obstipatio, Ophthalmia, Otalgia, Rheumatismus acutus, Scabies, Tænia, and Varicella.

THE METEOROLOGICAL JOURNAL,

From the 20th of AUGUST to the 19th of SEPTEMBER, Inclusive.

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.			Barom.				De Luc's Hygrom. *Dry.*	*Damp.*		Winds.		Atmo. Variation.		
20			50	61	48	29	95	29	93		5	3	NE	N	Fine	——	——
21			57	62	49	29	89	29	96		4	5	NE	NNW	Fine	——	——
22			55	63	53	30	00	30	03		9	9	NE	NE	Fine	——	——
23	☽		60	67	51	30	03	30	09		11	9	N	N	Fine	——	——
24			60	69	58	30	15	30	08		7	5	NNW	SW	Clo.	Fine	——
25			62	68	59	30	07	30	05		3	5	W	WNW	Clo.	Fine	Clo.
26			65	70	60	30	00	29	92		7	9	W	W	Clo.	Fine	Clo.
27			63	71	60	29	85	29	75		9	5	W	SW	Clo.	Rain	Clo.
28			65	70	61	29	71	29	84		3	5	W	W	Fine	——	——
29			65	72	58	29	90	29	95		7	5	W	SW	Fine	——	——
30			61	68	61	29	96	29	98		3	3	NW	WNW	Rain	Fine	——
31	☾	,02	63	70	57	29	94	29	85		7	5	SE	E	Fine	——	——
1		,01	61	68	58	29	58	29	70		7	9	SW	S	Rain	Clo.	Rain
2		,08	62	70	60	29	87	29	95		9	7	W	SW	Fine	——	——
3			63	72	60	30	00	30	01		9	5	SE	S	Fine	——	——
4			63	70	62	30	00	29	91		10	19	SE	S	Clo.	Fine	——
5			65	70	60	29	87	29	82		20	17	S	SW	Rain	Clo.	Rain
6		,09	63	71	55	29	72	29	78		20	25	W	WSW	Rain	Fine	——
7	☾	,05	58	67	53	29	90	29	92		15	9	W	W	Fine	——	Clo.
8			58	66	53	29	90	29	81		10	12	W	NE	Fine	Rain	Clo.
9		,10	58	61	48	29	71	29	65		15	16	NE	NNE	Fog	Rain	Clo.
10		,07	52	57	48	29	78	29	83		15	16	N	NW	Fine	——	——
11			52	60	48	29	87	29	93		10	10	WNW	W	Fine	——	——
12			53	64	51	30	00	30	05		10	12	W	WNW	Fine	——	Clo.
13			58	67	51	30	15	30	27		13	12	N	NNE	Fine	——	——
14	●		57	65	50	30	21	30	07		11	10	SW	SW	Fog	Fine	Clo.
15			54	59	48	29	78	29	76		15	10	SW	SE	Clo.	——	——
16			49	61	49	29	62	29	39		12	15	SSW	SW	Fog	Clo.	Fine
17		,19	55	60	48	30	19	30	24		17	20	S	S	Rain	Fine	Clo.
18		,23	53	59	49	30	10	30	00		16	12	E	SE	Rain	——	Clo.
19		,31	56	62	48	30	05	30	00		19	25	S	SE	Rain	Clo.	Rain

The quantity of rain fallen in August is 4-100ths of an inch only.

A REGISTER OF DISEASES

Between AUGUST 20th and SEPTEMBER 19th, 1818.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	10		Furunculus	1	
Abscessio	9		Gastritis	3	1
Amaurosis	1		Gastrodynia	19	
Amenorrhœa	11		Gonorrhœa *pura*	10	
Anasarca	14	1	Hæmatemesis	1	
Aphtha *lactentium*	7		Hæmoptöe	11	
Apoplexia	3	2	Hæmorrhois	19	
Ascites	5	1	Hemiplegia	3	1
Asthenia	18	1	Hepatalgia	2	
Asthma	37	2	Hepatitis	33	2
Atrophia	3	1	Hernia	4	
Bronchitis *acuta*	2		Herpes *Zoster*	2	
——— *chronica*	1		——— *circinatus*	1	
Cancer	1		——— *præputialis*	2	
Cardialgia	6		Hydrocele	2	
Carditis	1		Hydrocephalus	3	1
Catarrhus	41		Hydrothorax	1	
Cephalalgia	27		Hypochondriasis	2	
Cephalæa	1		Hysteria	7	
Chlorosis	2		Hysteritis	1	
Chorea	3		Icterus	5	
Cholera	49	4	Infant	1	
Colica	10		Ischias	1	
——— *Pictonum*	6		Ischuria	3	
Convulsio	2	1	Lepra	1	
Cynanche *Tonsillaris*	17		Leucorrhœa	8	
——— *maligna*	1		Lithiasis	1	
Dolor lateris	7		Mania	4	
Diabetes	2		Menorrhagia	17	
Diarrhœa	64	3	Morbi Infantiles*	34	
Dysenteria	26	2	——— Biliosi*	19	
Dyspepsia	21		Obstipatio	11	
Dyspnœa	10	1	Odontalgia	7	
Dysuria	3		Ophthalmia	17	
Ecthyma	2		Otalgia	2	
Eczema	2		Palpitatio	2	
Enteritis	11	4	Paralysis	4	
Entrodynia	4		Paronychia	1	
Epilepsia	3		Peripneumonia	11	
Epistaxis	5		Peritonitis	15	
Erysipelas	10		Pertussis	17	1
Febris *Intermittent*	5		Phlogosis	3	
—— *catarrhalis*	60		Phthisis Pulmonalis	23	9
—— *Synocha*	3		Plethora	2	
—— *Typhus mitior*	29	1	Pleuritis	11	
—— *Typhus grav.*	14	4	Pleurodyne	4	
—— *Synochus*	57		Pneumonia	5	1
—— *Puerpera*	2		Podagra	3	
—— *Remit. Infant.*	6		Pompholyx *diutinus*	1	
Fistula	4		Porrigo *larvalis*	3	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
——— *scutulata*	1		Splenitis	1	
——— *favosa*	2		Strictura	6	
Prolapsus	2		Singultus	1	
Prurigo *mitis*	2		Syncope	2	
Psoriasis *guttata*	1		Syphilis	25	
Purpura *hæmorrhagia*	1		Tabes Mesenterica	6	1
Pyrosis	1		Tic Doloreux	1	
Rachitis	2		Vaccinia	27	
Rheuma, *acutus*	12		Varicella	5	
——— *chronicus*	32		Variola	17	2
Roseola	1		Vermes	12	
Rubeola	7		Vertigo	17	
Scabies	71		Urticaria *febrilis*	5	
Scarlatina *simplex*	7				
——— *anginosa*	1		Total of Cases	1275	—
Scorbutus	1		Total of Deaths		48
Scrofula	6	1			

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

It will be perceived by the Table that derangements of the stomach and bowels still maintain a high proportion in our list. In some instances these latterly have assumed a very severe and malignant aspect, and have proved inflammatory and dysenteric. Acute gastritis, which is a disease of comparatively rare occurrence, appeared in one particular case which came under our notice to have happened from a great irritability of the organ affected, accompanied with an extraordinary acrimony of the biliary secretion. We have been informed, that at Guilford gastric and intestinal complaints, of a very severe kind, indeed have been absolutely epidemic; but this information comes to us in a general way, and we have not hitherto been favoured even with a confirmation of the report.

It is with concern that we have to record in the List seventeen cases of small-pox, two of which have proved fatal.

One of our Correspondents has favoured us with the following information respecting some of the diseases in his Register:—

"In the case of atrophia, which ended in death, upon examination *post mortem*, the liver was found tuberculated; and the left kidney was enlarged by fungus hæmatodes, so as to weigh five or six pounds. The subject was a man of forty-five years. He had been accustomed to an irregular life.

"One of the fatal cases of apoplexy was of the serous species. The patient had for a long time suffered from spasms of the stomach, and from the effects of gall stones.

"An instance of gangrene of the muscles under the lower jaw, and which occasioned death, happened in consequence of the breaking of a tobacco-pipe forcibly under the tongue, while the subject of the accident was in a fit of intoxication."

The following is an extract from a Letter we have just received on the subject of hydrophobia, two or three instances of which have lately occurred:—

"Some very interesting cases have been related, in which life appears to

have been saved by the employment of ammonia internally, after very alarming symptoms have appeared, consequent upon the bites of serpents. Recollecting this circumstance, the writer of these lines, smarting from the sting of a wasp, and finding no relief from the use of sweet oil, applied hartshorn and oil in equal quantities, after which the burning pain rapidly subsided.

"May it not be right, until some medicine of higher pretensions is thought of, to give immediately after the bite, and for a considerable time afterwards, full doses of the volatile alkali, and encourage any perspiration which it may induce during the early stages of its employment?

"May not the volatile liniment be also a proper fluid with which the parts around the wound caused by incision might be washed, and even with which the whole limb might be bathed?" X.

MONTHLY CATALOGUE OF BOOKS.

Mr. Carmichael's Work on the Uses and Abuses of Mercury in Venereal Diseases. 8vo.

Practical Researches on the Nature, Prevention, and Cure of Gout, in all its Open and Concealed Forms: with a Critical Examination of some celebrated Remedies and Modes of Treatment employed in this Disease. By James Johnson, Esq. 8vo.

Transactions of the Medico-Chirurgical Society of London. Vol. ix. Part I. 8vo.

A Translation of Orfila's Elements of Chemistry, with Plates. Vol. i. 8vo.

Orfila on the Remedies to be used by Persons who have taken Poison. Translated by H. R. Black. 12mo.

Elements of Anatomy, for the Use of Students at the Royal Academy; with Plates. 8vo.

An Inquiry into the Laws of the Vital Functions, and Internal Diseases. By Dr. A. P. Wilson Philip, M.D., &c. Second Edition. Octavo.

Observations, with Cases Illustrative of the Sedative and Febrifuge Powers of Emetic Tartar. By William Balfour, M.D. 8vo.

Memoir on the Congenital Club-Feet of Children, and on the Mode of Correcting that Deformity. Translated from the Italian of A. Scarpa, by J. H. Wishart. With Plates. 4to.

Underwood's Medical Catalogue for 1818-19, comprising an Extensive Collection of Books in Anatomy, Medicine, Surgery, Midwifery, Chemistry, Botany, &c. including a valuable Assortment of Foreign Books. To which are added, Tables of the Pay of the Medical Departments of the Army, Navy, and East India Company's Service; a Complete List of the Lectures delivered in London, with their Terms, Hours of Attendance, &c. &c.

Anderson and Chase, Medical Booksellers, 40, West Smithfield, have just published their Annual Catalogue of Books in Anatomy, Medicine, Surgery, Midwifery, Chemistry, Botany, &c. new and second-hand; including an extensive collection of foreign publications recently imported, a Complete List of the Lectures delivered in London, with their Terms, Hours of Attendance, &c. &c.

A Manual of Practical Anatomy, for the Use of Students engaged in Dissections. By Edward Stanley, Assistant Surgeon and Demonstrator of Anatomy at St. Bartholomew's Hospital, in one vol., 12mo.

In the press, Practical Observations on Fever, Dysentery, and Liver Complaints, as they occur among the European Troops in India; with Introductory Remarks on the Disadvantages of Sending Boys for Indian Military Service; illustrated by numerous Tables and Cases, in one volume, 8vo. By George Ballingall Esq., Surgeon to His Majesty's 33d Regiment, and formerly of the Royal Scots.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Mr. Gaitskell, Dr. Robertson, Dr. Gumpretcht, Mr. Fordel, Mr. Blackett, *and* Mr. Rose.

We are sorry that Mr. Croker's *favour has been overlooked till this moment. It shall be attended to in the next Number.*

C. H. H. *has obliged us by his friendly hints, of which he will perceive we have availed ourselves.*

Errata in the last Number—Page 244, line the fourth from the top of the page, the words *loss of* are omitted between the words *permanent* and *isochronism.*

In page 199, *Sodæ Phosp.* ℥v. should have been printed ʒv. This correction will serve as a reply to that part of *Mr. Ford's* communication in the present Number, relative to this particular.

Communications are to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

Fig. 1.

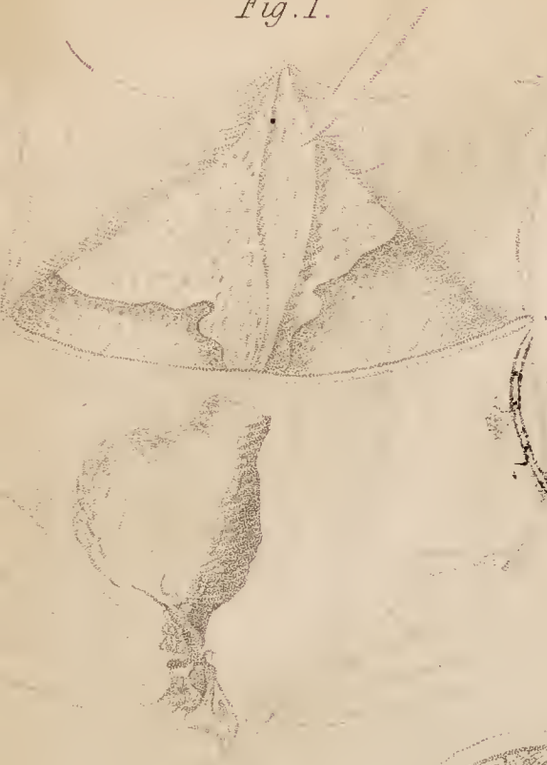
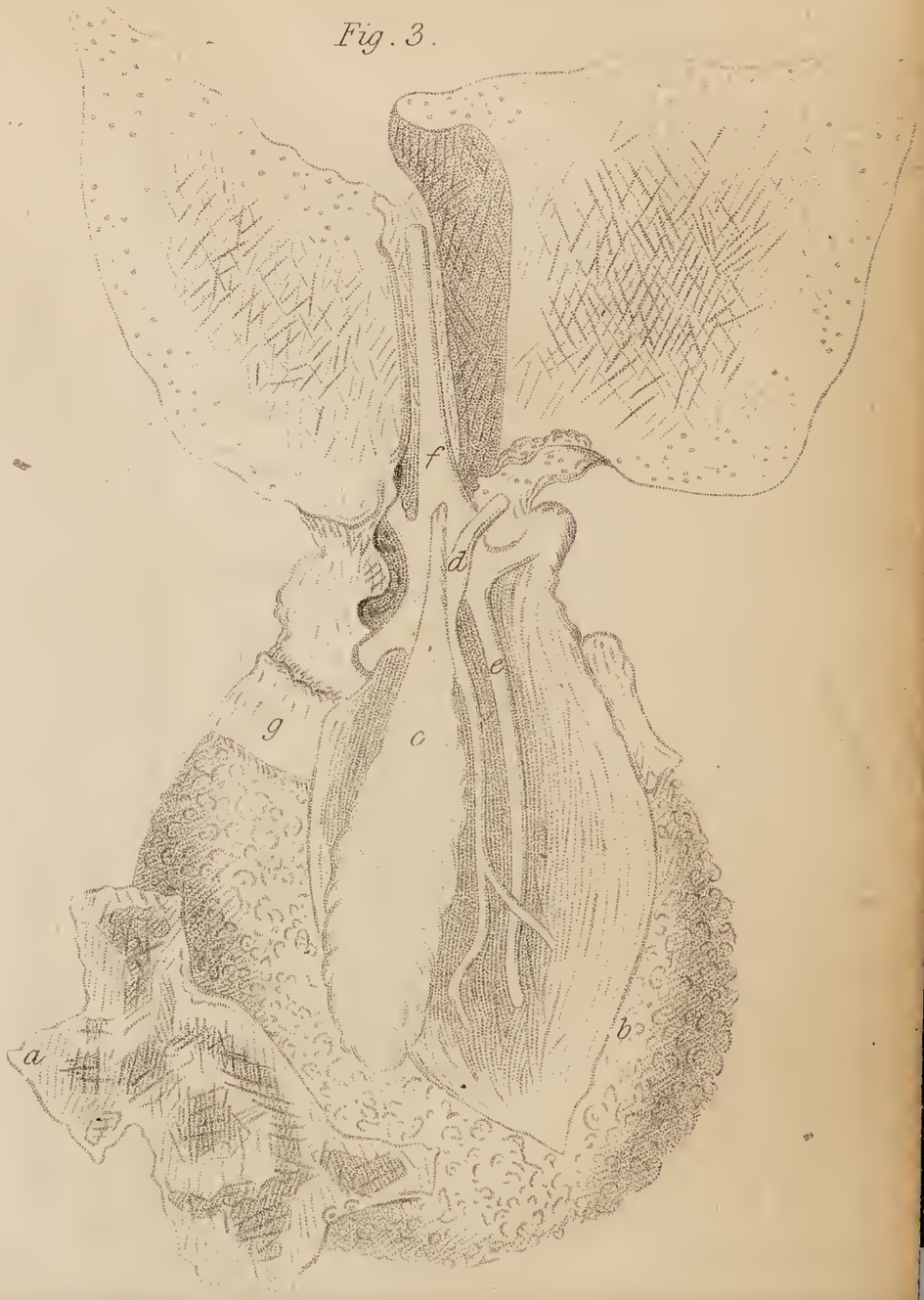


Fig. 2.

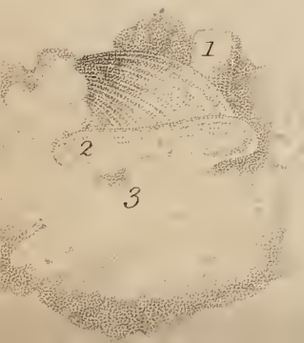
Fig. 3.



LANCASTER MEDICAL SOCIETY.

Fig. 4.

Fig. 5.



THE

LONDON MEDICAL

REPOSITORY.

No. 59. NOVEMBER 1, 1818. VOL. X.

PART I.

ORIGINAL COMMUNICATIONS.

I.

A Fatal Case of Diseased Œsophagus. By WILLIAM GAITSKELL, of Rotherhithe, Member of the Royal College of Surgeons and Society of Apothecaries in London.

MRS. C——, a married woman, about twenty-six years of age, of delicate health, while sitting at dinner with some friends, was suddenly attacked with an acute pain at the pit of her stomach, which confined her to the room for several days, and then gradually abated. This happened in the year 1795. As the pain returned at different times, she was prevailed on to have the opinion of Dr. Myersbach, who prescribed for her several medicines; but their operation on the stomach was so painful, that neither the solicitation of friends, nor the most sanguine promises of relief, could induce her to further perseverance.

Some time after this, about the middle of December of the same year, and three months previous to her decease, she made application to me; and the following is the description of her symptoms:—A violent pain beneath the inferior portion of the sternum, descending to the scrobiculus cordis, and backward to the spine; attended with nausea and retching. This pain was of the aching kind, constantly present, but variable in violence, and temporarily relieved when the stomach was distended with food. Whatever might be its nature or quality, whether fluid or solid, it was swallowed with considerable difficulty; and to effect its passage, a two-

fold operation was required; first, its conveyance into the œsophagus, which was done with the usual facility; and, secondly, its conveyance into the stomach, which was a studied effort, and accomplished with considerable difficulty.

From this double deglutition, I presaged the worst kind of strictured œsophagus; and from the situation of pain and obstruction, I judged it in the proximity of the cardia.

After delivering my ideas on the subject, I suggested the possibility of relief from the careful introduction of bougies; but this being refused by my patient, she submitted herself solely to medicine. Some small doses of calomel, light bitter infusion, and saline aperient powders, formed the constitutional treatment; while the local consisted of leeches and blisters; but without any alleviation of her sufferings. She now acceded to my former proposal, the introduction of a bougie. A full-sized urethral bougie, thirteen inches long, slightly bent, was passed into the œsophagus, when a sensible tightness was perceived, and a very distinguishable hardness. When the bougie was withdrawn, she expressed pain, and cried out, "You have reached the seat of my affliction." The bougie was retained about half a minute, and this continued daily for a month. The first week seemed to afford her relief, and she wished a repetition of it; but every day after her sufferings were augmented, which induced me to desist from its use.

Mr. Cline being now consulted in the case, approved the disuse of bougies; and recommended, as irritation was present characteristic of ulceration, that a weak solution of sulphate of zinc should be frequently swallowed for the purpose of lotion and medicine. This was persisted in for three weeks, when the act of swallowing became so painful, and retching from ingesta so constant, that she refused all sustenance; and after languishing for a fortnight, with apthæ in her fauces, and unquenchable thirst, she terminated her miserable existence.

There is one thing singular and worthy of remark, that this disease seemed to be hereditary in her family, for her mother and sister both died of obstructed œsophagus: the former at the age of fifty-six, the latter at twenty-seven, and the subject of the present case at twenty-six.

DISSECTION.

I examined the œsophagus two days after her decease, which presented the following appearances:—This tube from the pharynx to the cardia was changed in structure, being white and firm in texture, more like ligament than muscle.

About one inch above the cardia it was actually schirrous,

and this schirrosity extended over the whole small curvature of the stomach to below the pylorus. The head of the pancreas, glisson's capsule, and the ductus communis choledichus, partook of this affection.

The gall-bladder was flaccid, and completely empty of bile.

The liver inflamed and hardened, particularly its concave surface and anterior edge.

The spleen was not spared, for it adhered to the stomach, and was considerably hardened. The thickening from the cardia to the middle of the small curvature was three lines of an inch, and gradually lessened as it spread down the sides of the stomach. The internal coat showed several inflamed spots.

The omentum was divested of fat, greatly discoloured, and almost in a state of gangrene.

The intestines were not injured. The heart and pericardium appeared healthy, but contained a larger quantity of serum than usual. There was much water diffused through the cavity of the abdomen, not less than a gallon.

The concave surface of the diaphragm, on the sinister side of the abdomen, was full of rugæ.

II.

Remarks on Phrenology, in Reply to Dr. Ronalds' *Strictures.*

By W. Fordel.

On the appearance of Dr. Ronalds' first paper in the Repository, I called on my friend Dr. Leach, and read it to him. He appeared vexed that persons unacquainted with the principles of Spurzheim's notions should attempt to combat them, and requested me to write a letter to the Editor on the subject.

It is a curious fact, that amongst all the persons who have in this country written against Gall's and Spurzheim's phrenology, (craniology or cranioscopy, as it is termed by its enemies,) not one seems to have made it an object of his examination, nor even to have learnt what are the opinions of its founders respecting the structure and use of those parts which compose that appendage to the nervous system named the brain.

The late Dr. Gordon, the most active opponent in Great Britain, has published four statements of his opinions, (if such they can be called, which contradict each other); an exposition of which would have been published by my above-mentioned friend had Dr. Gordon lived. Let me now proceed to notice some of Dr. Ronalds' objections :—

1. Dr. Ronalds states, that Baron Haller adduces many

cases detailing the loss of the cineritious matter, the *part* in which the *organs* are said to have their seat, while the intellects remained unimpaired.

According to Dr. Spurzheim, the cineritious matter is considered as the matrix in which the fibrous (or, as it is improperly called, medullary,) part of the brain is formed, and is believed by him to perform no other function, and has never been mentioned as the seat of the organs.

2. Drs. Gall and Spurzheim admit all organs to be double; and an examination of the brain, according to Spurzheim's method, will not only prove this, but will show that the opposite sides of the brain are brought into communication with each other by commissures: and this theory is rendered the more probable, since a derangement of the commissures causes the two sides to act separately, as has been observed in a diseased state of the commissures of the optic nerves when persons see double.

Every part of the brain on one side may, therefore, be destroyed, and yet all the functions be carried on by the other.

3. Drs. Gall and Spurzheim believe that the intellectual faculties are made manifest by that part of the brain which is situated behind the frontal bone.

The instances, therefore, quoted by Dr. Ronalds, proving that the intellectual faculties have remained unimpaired in the cases of "a tumor occupying the situation of the pineal gland;"—"of a sac of water filling a posterior lobe of the brain;" and "of a lady who possessed the use of all her senses when the left hemisphere of her cerebellum" (the organ of physical love, according to Drs. G. and S.) "was converted into a bag of purulent matter," do not in any degree militate against the opinion of phrenologists.

4. The brain is composed of fibres disposed beneath the cineritious matter, in the form of a collapsed bag, the folds of which, in a natural state, are attached slightly to each other. In the state of hydrocephalus, the water secreted gradually unfolds the convolutions, separating the folds from each other, and occupies the cavity of the bag.

With this view of the structure of the brain, (of the truth of which any one may satisfy himself,) Dr. Spurzheim does not perceive any thing extraordinary or wonderful in the parts of the brain performing their functions in a horizontal or curved, instead of a vertical position. In those cases in which hydrocephalus is unattended with a yielding of the sutures, the pressure from effusion of blood produces a languor or total suppression of the faculties of the cerebrum; whilst the cerebellum, being protected both by its position and texture, generally continues in a more or less active state.

5. Respecting ossified brain. On this subject I will repeat the words of Spurzheim, " that if ever any brain be ossified, and the animal preserve the manifestation of the intellectual faculties, we shall be the first to declare that our whole doctrine of the functions of the brain is a mere chimerical invention." The fact is, that the pretended ossified brains that we have seen are mere exostoses. The brain of the cow, mentioned by Dr. Ronalds, we have never seen; but we have no account of the cow whilst living, and, therefore, (admitting the correctness of the statement, that the brain was ossified, which, from Dr. Ronalds' description of it, seems certainly not to have been the case,) cannot perceive any proof that the cow, with such a brain, manifested the usual faculties of the species.

6. It is asserted by Dr. Ronalds, p. 179, " that Dr. Gall set boys in the street to fight each other," and then found elevations in their heads, indicating the organs of combativeness. I do not know where such a passage is to be found in any work published by Gall, Spurzheim, or their followers. Gall certainly observed, that certain boys in Vienna constantly assembled for the purpose of combat, and on examining their head, he observed a development of that part of the brain which he believes to indicate, in man, and other animals, a propensity to fight.

7. Dr. R. observes, p. 180, that it would be difficult for the cranioscopist to comprehend how the Turks can possess any intellect at all.

A slight inspection would convince the phrenologist, that the intellectual parts of that nation are highly developed, whilst he would lament their religion and government, which so effectually preclude them from using it, to meliorate and amend their condition.

The other remarks, page 181, No. 3, are by no means worthy of notice, and only prove that Dr. R. has not taken the trouble to read what has been written by the disciples of this school.

III.

An Extraordinary Case of Congenital Hernia. By C. B. Rose, Surgeon, Swaffham, Norfolk.

[With an Engraving.]

I was called in by a midwife to extract the placenta in a case where that substance was retained by the hour glass contraction of the uterus. After having relieved the woman, and left her comfortable, I was requested to examine a curious swelling at the navel of the infant; the appearance of which

had caused much astonishment in the professional dame and her assistant, and had excited much wonder, and produced not a few conjectures as to the cause of this (to them) unheard of tumor.

I found a tumor about the magnitude of a lemon of the middle size, its surface smooth, and semi-transparent, it being formed of the investing membrane of the funis, distended by the protrusion of some part of the abdominal viscera into it: the dilatation had taken place at the upper surface of the cord, the umbilical vessels passing from the inferior part of the tumor, as may be seen in fig. 1. On compressing the tumor with my fingers, I could not at all determine what were its contents; its firmness made me suppose it was an epiplocele, perhaps containing a small portion of intestine; but a dark colour, which was visible in places through its coats, and my attempts to reduce it proving fruitless, made me still doubtful. The rarity of this case in private practice, naturally excited a great desire in me to learn the consequences of such a state of parts; I therefore anxiously looked forward to those changes which I knew must take place on the surface of the tumor, and attentively watched their progress. In two days the tumor changed colour, becoming a yellow green in places, and less transparent; its colour became darker daily, until it was quite black. During this process, which occupied a week, a yellow fluid was discharged from different points of its surface, where the investing membranes of the funis were very thin, and had given way whilst sphacelating. At this period the separation of the dead covering from the living tumor commenced, and it began first at the neck of the hernia, where the integuments of the abdomen form the boundary of the opening at the umbilicus. This process was characterized by a redness of the cuticular border of the umbilical opening, which extended, and increased in intensity, as the sloughing advanced. This removal of the parietes of the tumor exposed the hernial sac, which presented a very florid, granulating surface. Whilst the cord was sphacelating the poor child suffered nothing; it sucked, and took other nourishment heartily, slept well, and its bowels were regularly emptied; but no sooner did the dead parts begin to separate, than it became very uneasy and restless; constitutional irritation supervened, with diarrhœa; and by the time that a small portion only of the sac was uncovered, (at the end of the third week,) the vital powers of the child were exhausted, being unequal to the effort required for the reparation of the parts.

The changes which took place on the surface of the tumor during the life of the child, did not throw much light upon the nature of its contents: so to satisfy myself fully on that point,

I begged permission to open the abdomen; and, fortunately for me, the curiosity of the grandmother overbalanced the strong prejudice against dissection, so very general in all classes of society; and I was not only allowed to examine the parts *in situ*, but to bring them away with me: want of time, and the agitation of my subject's mother, obliged me to be very expeditious in the removal of the parts; I could, in consequence, make a hasty sketch only of the sectio-abdominis, and parts *in situ*. Fig. 1. will give a pretty correct idea of them.

The contents of the hernia proved to be a tumor, arising by a narrow and flat neck from the inferior edges of the right and left lobes of the liver, and then enlarging in the form and to the size of a lemon; its substance was of the same nature as the liver, and, like it, had a peritoneal coat; it was extremely vascular, and was supplied with vessels from the hepatic artery, and vena portæ, and numerous veins returned the blood into the hepatic veins: one common vein, (fig. 3. f.) passing posteriorly to the umbilical vein between the two lobes of the liver, received all the blood from this tumor by many veins, and also part of the blood of the inferior portion of both lobes of the liver, and emptied itself into the inferior cava. This vein appeared to have no communication with the umbilical vein. It most probably secreted bile: but in my hurry, when removing the parts, I divided the ducts so close to the liver, that I took only part of the ductus cysticus, so that I could not trace the biliary ducts. The hernial sac was formed by the peritoneum; it adhered firmly to the whole surface of the tumor, in consequence of the adhesive inflammation which arose on the attempt to separate the dead funis, and which produced a copious deposit of lymph, that formed a light coloured coat, a line in thickness, and nearly of a gristly hardness. See fig. 4. I consider this to be the origin of the coat of the tumor, because it did not extend to the neck of it in the cavity of the abdomen. The umbilical vein entered the body of the tumor just below its fundus, passed through its substance along its neck to the fossa umbilicalis of the liver: in its passage it received several veins of various calibre; and many veins of the liver poured their blood into that portion of it contained in the fossa: this was seen on laying open the convex surface of the liver, and anterior surface of the tumor. See fig. 2. The umbilical arteries passed along the inferior and exterior surface of the hernial sac, and entered the abdomen as in the natural state of the parts. Upon examining the concave surface of the liver, and posterior surface of the tumor, fig. 4, I found the neck of the latter as it were folded up, and enveloping the gall bladder;

upon unfolding which, and turning the gall bladder to one side, a large branch of the hepatic artery was exposed, ramifying in the substance of this part of the tumor with an accompanying vein. The rarity of the above-described hernia does not consist in its containing liver, for many umbilical hernia have been found to contain a part of that viscus; nor in its parietes being formed by the sheath of the funis, for I find that Dr. Hamilton, of Edinburgh, met with about two cases annually, for the space of seventeen years; but in the contents being an additional and preternatural lobe to the liver; the like to which I never saw or heard of.

In regard to what is to be done in such cases.—When practicable, the contents should be returned into the abdomen, and a ligature passed around the funis, close to the navel, to prevent a recurrence of the protrusion: but in similar cases to this, the smallness of the mouth of the umbilical opening, in comparison with the form of the tumor, and its incompressibility, must render all endeavours towards reduction of no avail.

Explanation of the Plate.

Fig. 1. Represents the tumor as it appeared at the birth of the child: the upper part of the abdomen is opened to show the connexion of the tumor with the liver.

Fig. 2. Represents the anterior surface of the liver and tumor; the latter opened, showing some of its veins emptying themselves into the umbilical vein.

Fig. 3. Represents the posterior surface of the liver and tumor; the latter unfolded only, bringing into view the gall bladder, an artery, and vein.

a. A portion of the sloughing covering of the hernia. *b.* The exposed surface of the hernial sac, covered with granulations. *c.* The gall bladder. *d.* The artery. *e.* The vein. *f.* A large vein, receiving blood from many of the veins of the tumor and liver. *g.* The common integuments of the abdomen immediately surrounding the umbilicus.

Fig. 4. Represents a section of the tumor, showing its outer coat, formed by the hernial sac, thickened, and firmly adherent.

IV.

A Case of a Tumor formed in the Navel. By P. C. Blackett, Surgeon R.N. M.L.S., Park Street, Grosvenor Square.

Mrs. M. ætat. sixty-four, complained in August last of a pain about the umbilicus, which had been increasing for four or five months; and lately she had perceived in the centre of the navel a sharp pointed substance, which scratched her

hand when she passed it over the part. She stated that she did not pass her urine as usual, it being retained in the bladder. She described the abdominal muscles as at times very tense. This tension, she said, came on about four or five times a day, with violent spasmodic pains.

On examination, I found the muscles very tense, the bladder was much distended, and there was also a something in the centre of the navel which was very sharp pointed, so as to scratch the palm of my hand: its appearance was that of a sharp corn. I ordered medicines and applications, &c. to relieve the symptoms; and applied the ung. sabin., in order, if possible, to destroy the substance, or rather its circulation. In about four days the point came away, but the symptoms continued, yet not with such violence: the remedies and dressings were continued as before. On the sixth day the dressing was soiled with a dark and fœtid discharge: remedies continued as before: and on the twelfth day the dressings and tumor fell on the floor without the patient being aware of it. The tumor had a glandular substance in its middle, surrounded with fat, and a tendinous substance on one side, which had the appearance of part of the navel. The wound, after the exit of the tumor, was thimble-shaped, and about two inches deep, owing to inflammation of the adjacent parts: it was brought together by adhesive straps, and all the symptoms of retention, &c. disappeared the day after; and in the course of the week the wound was healed firmly, the navel appearing as strong as before, excepting it was deeper, owing to the loss of substance.

The preparation is in the valuable Museum of J. Brooks, Esq.

Explanation of the Figure, No. 5, in the Plate.

1. Part of the Umbilical Cord.
2. The Glandular Substance.
3. Fatty Substance.

V.

On Extraneous Substances in the Ears, &c., in Reply to Mr. Ford. By W. Wright, Surgeon-Aurist, Bath.

A writer, calling himself F. Ford, of Bath, having put together some observations, in the Repository, in reply to a paper of mine respecting "Extraneous Substances forced into the Ears;" I beg permission to say a few words in reply, merely to show that my report of the case of Master Bird is by no means controverted by the opinion of this "expe-

rienced practitioner." He sets out with a declaration of his *incredulity* as to "extraneous substances forced into the ears" causing death. I have great reason to believe his confession candid; and I have equal reason to believe that cases of this nature have not occurred within his sphere of knowledge. However, thanks to authorities of *undoubted* experience, the fact is too well established to render a reference to particular cases *necessary*. To gratify the curiosity of Mr. Ford *only*, I think it quite unnecessary to quote them. Probably Mr. Ford would be as incredulous, were he informed that polypi in the ears have occasioned death, or that I have extracted one very lately, and have it in my possession, which nearly fills a two drachm, not a two ounce, phial. Indeed, speaking of ounces, I think a few grains of common sense would have prevented any person from supposing five ounces of phosphate of soda were administered to a boy of nine years of age.

Mr. Ford goes on with an account of the consequences resulting from the introduction of an extraneous body into the ear, which he assumes to be the process in the *generality* of cases. Now this happens not to be the fact; for the nature of the substance, and the constitution of the patient, must be taken into consideration before any probable termination of the case can *à priori* be even surmised. As an instance of this, I have a wasp in my possession, which I extracted from a gentleman's ear after it had remained there above five years, without either exciting inflammation, passive or active, suppuration, or even abrasion! Yet before I extracted the insect, such were the distressing and ambiguous symptoms existing, that death would most probably have been the result, had the patient not been so fortunately relieved of this extraordinary substance, which had obtruded itself within the ear. Nor can I readily believe, that all the oil and *contre coups* of Mr. F. would have removed the cause or attendant symptoms, any more than they would have extracted plugs of cotton or wool from the ears of patients, to whom instruments, applied *judiciously*, have rendered that service. That substances have remained within the external auditory passage for several years, without terminating in abscess, I could adduce many proofs. Sometimes the efforts of nature to relieve herself of these extraneous bodies produce serious effects on the system, by symptoms very remote from the seat of the disease. A case occurred lately, which had baffled the skill of several medical gentlemen for a considerable time as to the exciting cause, or even seat of the disease, so general were the symptoms: yet immediate relief was completely given by the extraction of a pea from one of the ears!

Mr. Ford I suppose wishes it to be believed, that the observations he has made on the formation of fungous flesh, result from his own "*experience*;" whereas all he has said on this subject is nothing more nor less than a mere reiteration of the well-known sentiments of medical writers, who *understood* what they wrote upon. He likewise decides that the case of Master Bird was *not* a polypus. Now, as Mr. Ford did not see the case, I cannot allow him to be exactly competent to give an opinion upon it: indeed, I consider his assumption, and his manner of noticing what must evidently be a typographical error, as to the dose of phosphate of soda, very unlike the correct and liberal sentiments of an enlightened practitioner. Fortunately, I am in the constant practice of affording certain, perfect, and permanent relief; without risk, pain, or those "detrimental effects" Mr. Ford is terrified at, which never occur to my patients.

A very superficial knowledge of mechanical powers will prove that the *contre coups* recommended by Mr. Ford, for which he quotes Mr. Abernethy as his authority, must cause the substance to go still further into the ear, instead of producing an opposite effect. Whatever *penchant* Mr. Ford may have for the operation by "*concussion*," (*percussion*, I suppose he means,) few patients would, I am convinced, be found to submit to it, or prefer it to a more scientific and *certain* mode of extraction; in which no possible danger exists, or could be supposed to exist with a skilful operator, by any person whose ideas had not been deranged by the percussion of ————.

But here let me take my leave of Mr. Ford; and in doing so, I wish to observe, "that this man of experience, who has met with such a considerable number of these cases," cannot be found according to his address, and is absolutely, even by the *Post Office*, returned "*Non est inventus*." To his inquiry respecting solution, any elementary work on chemistry would directly furnish an answer.

VI.

On Quarantine. By Henry Robertson, M.D., Physician Extraordinary to H. R. H. the Duke of Kent.

There is no subject in the circle of medical science more important than an investigation into the nature of plague and other febrile diseases, in order to ascertain their causes, and the modes by which these are propagated; as it is only by the knowledge acquired in this research we are enabled to regulate, upon scientific principles, the measures necessary for preventing the recurrence of such disorders, or to adopt the

most advisable plan to guard against their spreading when they do break out. As this is a subject to which my attention has been for many years directed, and having had considerable opportunities of making observations on the nature of those diseases during my residence in the Mediterranean, I therefore beg leave to submit the following concise remarks, as the result of my experience on this important question; being, from indisposition, unable to enter into a more extended discussion of it. I shall restrict these observations entirely to the practical inferences to be drawn from the facts ascertained of the nature of febrile diseases, in forming the regulations best adopted for stopping the progress of those disorders, or what is called *quarantine* in familiar language. Referring to my paper on the causes and prevention of remittent fever, published in the MEDICAL REPOSITORY for May 1814, for information upon what may be considered the necessary preliminary to this subject, I must likewise refer, in a general way, to my Essay on Contagion, annexed to the second volume of my work on the atmosphere, and to my papers on the plague and Mediterranean fever, printed in the REPOSITORY for December and February last, as containing my opinion of the nature of those diseases. See also a paper of mine in Annals of Philosophy, 1816. I shall only in the present instance remark, that I entered upon the present investigation without bias or partiality to any particular opinion or theory upon the subject, and that my conclusions are the result of personal observation, or deductions from the most credible testimony of others, also detailed in the above-mentioned Essay; by which I imagine it is shown: 1st. That the Mediterranean fever, in its most malignant form, and when it resembles the endemial fever of the West Indies, and other intertropical countries, is never a contagious disorder; and that it always depends on local, and commonly evident causes, and that the greater or less malignancy of that fever, in certain situations, is decidedly owing to local circumstances. 2dly. That similar causes to those producing the Mediterranean fever in its most malignant type, are capable, in certain circumstances of situation and climate, to give origin to the plague; particularly so, if the population exposed to the influence of those causes have suffered much from privation of diet, or have been otherwise exposed to the causes of despondency and depression. In this way, I imagine, the last plague at Corfu had its origin, similar to the origin of the second plague at Athens, as described by Diodorus, cap. xxiv. lib. 12; such as was the disease that destroyed the Carthagenian army before Syracuse, as indicated by the same author in cap. xviii. lib. 14; similar to the

causes that generated the plague in Alexander's army in India, as given by Curtius, lib. ix; and such as it originates every year in Egypt, as is evident by Alpinus de Medicina Ægyptior. Pugnet sur les Fièvres Pestilentielles, and others. 3dly. Although I believe that the plague occasionally originates from local causes, I am, however, convinced that it is most commonly propagated over the earth by the medium of contagion: in this way it was introduced lately into the Island of Cephalonia. 4thly. I consider the contagion of plague is only active at a very limited distance from its source, or when imbibed in goods, and the free access of the atmosphere is excluded from them. 5thly. I have shown that no alteration in the natural state of the atmosphere, in regard to temperature, density, or humidity, is ever the cause of epidemic diseases; on the contrary, that it is an active agent in destroying the effect of contagion, and that it is by its property, in this respect, that contagious disorders disappear.

Upon these data I shall now proceed to lay down what appears to me the practical inferences to be drawn from them, in our present view of the subject.

The spreading of contagion into the interior of a country is to be prevented by what are called quarantine regulations, which, it will be superfluous to premise, ought, in every circumstance, to be conducted in a manner that equally secures the public health, and affords every due facility to commercial intercourse. It is also to be kept in mind, that in this point of view, lazarettos, although for the more immediate purposes of the community in the stations where they are erected, are also to be contemplated as, in a certain degree, instituted for the benefit of mankind generally*. The charges on persons and goods performing quarantine, should be as low as is possibly consistent with the expenses of the establishment; and no perquisite or vail should be allowed to any officer or servant of the establishment beyond his wages.

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* This is a point of more consequence than what may appear by the bare statement of it; and I am persuaded, if generally acted upon, would, on many occasions, restrain the spreading of plague. A few years ago, the crew of a transport caught the infection at Alexandria, which broke out upon their voyage: the ship was refused admittance into any port or quarantine ground when she called; and the crew were thus driven about in a state of desperation, till at last a small desolate island was assigned them, as the spot for their quarantine. Now what must have been the consequences had the ship had communication with any other vessel or fleet during the period she was beating about from port to port in search of a place of refuge?!

As contagion is propagated by communication with infected persons, or contaminated goods, the next point to be attended to in this view of the matter, is the period of quarantine necessary for persons, and the purification of goods, suspected to be contaminated with contagious effluvia. Before this can be determined, a very important question is to be solved, to wit, the period that elapses from the time the contagion is received into the system, till it manifests its effects by symptoms of disease. I will not enter into a detail of the different medical opinions that have been held on the manner how contagion gets admission into the body: it will be seen at page 373 of my Essay on Contagion, that I suppose it exerts its powers upon the system by being admitted into the blood through the lungs by inspiration: this is the opinion of men of the greatest eminence who have considered this subject. By my paper on the plague, it is to be inferred, that nothing has occurred to me to shake that opinion after ten years' further experience; and that I do not admit the possibility of contagion being taken up by contact, when the scarf skin is entire, and otherwise healthy. Supposing, therefore, that the above is a correct opinion of the question, it follows that the lapse of time that ensues from the time of the admission of contagion, and when its effects manifest themselves in the body, must be much shorter than what has been commonly supposed: and it seems probable, that the reason of a contrary idea being held upon the subject, has arisen from the want of sufficient attention in distinguishing an attack of plague, produced by immediate inhalation of the contagion, as it arises from a person sick of that disease, from that brought on by inspiring the effluvium that may have been imbibed by any part of the dress of a person who has been thus exposed. The power of habit has also a material influence in regulating this case: for instance, a person much about those sick of a contagious disease, becomes not so susceptible of the contagion as those not so accustomed; but whenever the former is removed to a situation where he breathes pure air, he then very readily loses his power of exemption, and becomes equally liable to the effect of contagious vapour, should he inhale any part of it that may be adhering to his dress. This is illustrated by an example familiar to every one.—Europeans who have passed a long series of years in good health in intertropical climates, by a short residence in their native countries have their constitutional habits interrupted, and on returning to within the tropics they very frequently fall sacrifices to the diseases of that climate. Supposing the above elucidation sufficient to place this opinion in a distinct manner, I have next to bring to the reader's attention the many instances we

have of people exposed to pestilential vapour having suddenly expired by inspiring it inadvertently: nay, there is even an instance on record by Boccacio, of animals having been suddenly killed by it. There are no writers who describe that disease from actual observation, that do not give similar instances. In my Essay on Contagion, at page 357, I have described an instance recorded by Gonini: a similar fact is given by Plutarch. But I shall not encumber this paper with further authorities on the subject; as one fact is sufficient to show that contagious vapour, in its concentrated state, is possessed of the power of immediately extinguishing life. This fact, together with the rapidity with which the plague spreads through a country after its contagion has been introduced, the violence of the symptoms from the commencement, and the shortness of the duration of the disease, are circumstances that almost amount to a proof that it is occasioned by a most violent poison, operating by its immediate impression on the system, after being received into the blood, which must necessarily be the case upon the opinion, that contagion exerts its powers through the lungs in the process of respiration. Moreover, in proof of this opinion, I have not been able to find, after the most careful inquiries, that a person in health, taken from amidst contagion, where he had been in contact with those sick of plague, who, on being stript of his clothes, bathed, furnished with fresh clothing, and removed to a separate apartment, and kept apart from every sort of fomites or contaminated goods, ever took the disease after his removal. The contagious matter probably produces its baneful influence in the state of a gas or air: in this way it adheres tenaciously to the interstices of certain substances. Dr. Russel, of Aleppo, limits the *longest* period that the contagion of plague may exist in the body till it shows its effects, to ten days: Dr. Heberden states that of the contagion of small-pox to six days: but it is to be observed, that these periods have been limited in both cases, without due regard to the effect the person's apparel may have had in producing the disease, by retaining in its texture a portion of the contagion to which the person may have been previously exposed; and which, accidentally, may have given rise to the disease long after the person has been separated from the primary source of contagion. But, without this explanation, I consider the above opinions, by men so deservedly celebrated for intelligence and correct observation, as tending to confirm the opinion I have given of the immediate effect of contagion after its admission into the body, similar to what happens in the case of every other poisonous matter. I must further beg leave to state, in elucidating this very important point, that the opinion I have

given of the manner how contagion is admitted into the system, and its immediate effects after mixing with the blood in the course of circulation, is supported by analogous facts, such as take place on the breathing of certain gasses, when the effect immediately follows the experiments. But even upon the notion that contagion may be communicated by the touch, of which I doubt if one pure instance could be adduced, recent experiments, by Orfila, on poisons, teach us, that even in this way the contagious vapour should very speedily manifest its effects: indeed, the inculcating a different opinion has always appeared to me to have been supported with the same sort of reasoning, as if we were to be cautioned against the fatal effects of electrical lightning, after the thunderstorm has blown over.

In the quarantine of a person arriving in health at a lazaretto from an infected place, the greatest danger he runs of there becoming diseased, is by coming in contact with goods imbued with contagious vapour: and as his clothes and wardrobe are more likely to present a source of contagion than any matters he can possibly have access to within the walls of a lazaretto, it is, therefore, obviously an indispensable preliminary to the performance of quarantine, that he should be separated from his baggage immediately on his arrival there.

Upon the above-mentioned opinion of the immediate effect of contagion after its admission into the system, and that it is commonly communicated through fomites or infected goods, I should recommend, in order to expedite the process of purification, that the wardrobe and baggage of every kind, belonging to persons arriving in health from a place where the plague rages, should be thoroughly immersed for a few hours in soft water, excepting always such articles as the proprietor may not choose to submit to this process. The articles should then be wrung out of the water, and suspended over brass rods or grating to dry: after this they are to be considered as clean. The person himself is then to be stripped in the apartment he occupies, and to walk naked to the bath-room, which may be either tepid or cold, according to the person's feelings, or season: he is then to immerse himself all over, carefully washing with soap every part covered with hair. After this ablution, he must step into another apartment, and being furnished with the clothes that have been purified by immersion, or others that are clean, he must be detained for a few days' further observation; and should no symptoms of disease then appear in him, he may with all safety be admitted to *prâtique* at a period not exceeding five days from the time of his admission into the lazaretto. Such articles as have not been purified by immersion in water, re-

quire a longer process: this must be commenced by exposing them for a few hours, when spread out to the power of a temperature not less than 120° of Fahrenheit, and to be repeated several times for ten days, during which time they must be exposed as much as possible to a current of air, during night and day. But ten or twelve days, with vigilance and attention, will be sufficient for the accomplishment of the purpose. The same plan should be followed for the purification of all susceptible articles of merchandise coming from an infected place. All packages and bale goods, bags of cotton, raw silk, and the like, should in such circumstances be freely opened out; the cases or sacks to be immersed in water, and dried or destroyed, new ones furnished. But, in my apprehension, the most important matter to be considered in quarantine regulations, which in its decision is attended with most difficulty, and which has seemingly been neglected, so far as I can find by those who have written on the subject of plague, hinges upon the question, How long a person, *after an attack of the disease,* is capable of imparting it to another; as persons may become sick immediately after admission into a lazaretto, or they may be received actually labouring under infection. It has been ascertained, that a person just convalescent from a contagious disorder, is more contagious than during the actual febrile state of his system. Now, it is evidently an important point to be able to determine at what period this constitution of the system ceases to have effect. Nothing can be more absurd than the present practice of imposing the same period of quarantine upon a person who has not shown any symptom of disease, and one who has laboured under the affection, merely because they have both come from the same infected place. My own opinion is, that when a patient, recovering from a contagious disease, relishes his usual diet, passes his nights well, when mental faculties are composed and distinct, and particularly if the state of his tongue is natural, and all morbid quickness of pulse has ceased for some days, although debilitated, he may be pronounced incapable of communicating the disease to another person by any secretion from his body; and, in that state, after submitting to the warm-bath, he, on being furnished with fresh clothing, may then be placed for a few days' further observation before being admitted to *prâtique.* This necessarily makes a period of quarantine various in different individuals, which will likewise vary according to the severity of the previous disease; but, probably, in no case will it exceed twenty days from the commencement to the termination of the attack. But no person who has had an attack of the plague should be admitted to *prâtique,* whatever the gene-

ral state of his health may be, should the buboes not be completely healed, or should there be the slightest discharge from the most trifling sore. A different opinion has been recommended even by very high authority; but it would be too great a risk to run; although, in such a case, the free communication between the members of a family might be granted under particular restrictions.

No person should be admitted to *prâtique* till it has been sanctioned, upon the declaration of its safety, by a physician; nor ought goods to be liberated till after due testimony that they have been regularly and carefully submitted to the processes recommended for their purification. The floors and walls of apartments where persons or goods have been detained in quarantine, should be washed and ventilated after every liberation; and it would be advisable to prepare dresses for those performing quarantine, who have not changes of dress, or while their clothes are purifying.

I must here particularly notice the frequency of the plague arising from substances imbued with its contagion. This is not only the more frequent mode by which that disease is propagated, but it is said that its contagion becomes more virulent in its powers by being pent up in this way; and that it is owing to the affinity by which contagion adheres to certain substances, such as woollen and cotton materials, that it is found so difficult to purify them: and for this purpose, a thorough ventilation, exposure to a high artificial temperature, manipulation, and the force of pressure, are processes which, in every instance, such goods should be submitted to that arrive from a place where the plague rages at the time they were shipped. But, in a properly conducted lazaretto, all these processes may be effectually performed within one-third of the time commonly considered as a proper period of quarantine. It is a most erroneous opinion, and fraught with danger to the public health, to suppose that it is by time alone that such goods can be safely purified: upon that principle, no wonder that lazarettoes and quarantine regulations are attacked by the superficial, and come into disrepute with the multitude. The purification is performed by a current of air, the immersion in water, the fumigation by certain acid vapours, whenever that can be done without injury to the texture or colour of the material; exposure of the goods to an high temperature, the force of pressure; in short, by whatever displaces the contagious vapour adhering to such matters, causing it thereby to mix with the atmosphere, or by decomposing it. In the performance of quarantine, a distinction should always be made between persons and merchandise coming from the district or the vicinity of a place where the

plague rages, and such as arrive from the place actually infected.

The performance of quarantine, for obvious reasons, should never be permitted on shipboard when the ship has sailed from, or had communication with, an infected port or vessel on her voyage: in these circumstances we must be guided by the length of her voyage, the ports or vessels she may have communicated with, the health of her crew, the nature of the cargo, with two or three days' observation, will enable us to decide on the future measures to be pursued.

These observations entirely apply to the contagion of plague: it is the concordant opinion of all medical men, both in Europe and America, with a few very unimportant exceptions, that the West India fever is not propagated by contagion. The Mediterranean fever, even in its most malignant and fatal form, is not a contagious disease; and the exemption of this country from any bad consequences from the imported contagion of fever, during the long period of our possession of the West Indies, or in our commerce with the Mediterranean, is a consolatory proof of the correctness of the opinion of their local origin. Let it be remembered, that all our East India possessions are liable to the same disease, yet nobody hears of its contagious nature in that country. I wish particularly to avoid professional and technical discussions in this paper; but it appears to me to be necessary to make one remark here upon this question. The abettors of contagion, as the cause of the West India and Mediterranean fever, may say that it has appeared on shipboard; but no instance can be adduced where, in this way, that disease has been communicated to a distant and healthy climate. I have known the Mediterranean fever break out on shipboard in a most violent manner; once at Palermo, and again at Alicante; but in both instances it was found to have originated from the foulness of their holds; and by clearing these the disease was stopped. And I am persuaded, that an unprejudiced examination of similar cases that have occurred within the tropics, would have afforded a similar explanation to that which I have given of the cases as they occurred in the Mediterranean.

By the foregoing general observations the principles will be perceived upon which I propose quarantine should be regulated, both for persons and goods. I have not entered into a minute detail of particulars; these will be readily suggested, according to circumstances. Muratori, although not a Physician, conveys the fullest instructions on this subject, in his work on the Management of the Plague. Upon experience and reasoning, which he adduces, he restricts the period of

quarantine to twenty-one days: now, as this very intelligent and experienced authority recommends a practice so very opposite to that which is followed in submitting persons and goods to quarantine, and without taking into consideration the effect the person's apparel may have as fomites in producing the disease, the time I have inculcated, as the necessary period for clearing persons and goods suspected of contagion, could not be considered as theoretical, even were it not supported by the facts I have brought forward.

According to the foregoing plan, a considerable saving of time in the performance of quarantine, both for persons and goods, is proposed; and so far the great object of commercial intercourse would be facilitated. I am fully convinced, that upon the facts from which I have drawn my conclusions, the mode of quarantine I have suggested may be adopted with perfect security of the public health, which is our principal end in view in all such regulations: while in the present mode of trusting the purification chiefly to the length of time of the quarantine, instead of activity and scientific manipulation, I do not think the public health sufficiently protected.

I have been induced to forward the foregoing observations for insertion in the MEDICAL REPOSITORY, in consequence of the publication of what I apprehend to be contradictory opinions on the subject of contagion; and from the absurd and slovenly methods I have experienced in the performance of quarantine, when imposed upon myself, as well as what has been suggested during the period I held the appointment of Superintendant of Public Health at Corfu; and it would afford me much happiness to contribute in obviating the objections to which I allude.

Margate.

VII.

On Parish Registers, &c. By J. G. MANSFORD, of Frome, Somerset, Member of the Royal College of Surgeons in London.

THE energies of this great kingdom, for a long succession of years absorbed in foreign politics, appear at last to be actively, and, I trust, efficiently, directed to its internal resources and economy; many branches of which are in a course of patient and minute investigation. The most important of these inquiries, either in a political, moral, or medical point of view, are those which respect the nature of our population, and the causes and rate of its increase. The results of these inquiries, as far as they have been ascertained, are such as to encourage, or to appal, according to the respective views of

different parties on this subject: they are fruitful in interest to all; and to none more than to the medical philosopher, who finds in them the most decisive marks of improvements in his science, operating directly to the mitigation of disease, and the reduction of mortality, and extending their influence over the moral culture and habits of the people.

The sources, however, whence these important points of information are derived, abound with defects; and he who strives to push his inquiries beyond the mere fact of an increase in the health and the duration of life of the inhabitants of this country, who is anxious to discover the particular and local causes of such a change, and of the disparity in the rate of mortality in different places; the extinction or modification of different diseases; their exemption, or greater prevalence or fatality in certain situations than in others; and the particular physical and local circumstances which could be brought in explanation of such a difference; will find himself foiled in almost every attempt; and have to encounter disappointments, rendered the more vexatious, because they might be so easily remedied. A rich and inexhaustible store of valuable materials, neither obscure in character nor difficult of access, but lying on the very surface, and showing to the most inattentive observer the important purposes to which they might be applied, is most unaccountably neglected, and thrown aside as useless.

The interesting observations of Dr. Burrows on this subject, in the last Number of the Repository, which have given rise to the present paper, have displayed, in a masterly manner, the absurdity and impolicy, in a national point of view, of the present system of parish registers and bills of mortality, as well as their bearing on many important points of pathological research: and I am induced to offer the present remarks in aid of the reform he has so ably advocated, and from their being intimately connected with the subject of a treatise which I have recently given to the public*. I have to regret not having yet seen the "Strictures" of Dr. B.; and consequently that I could not, while employed in inquiries nearly similar, avail myself of the information and hints contained in them: but it must afford me much gratification to find the perfect agreement in the view which each has taken of the importance to medical science of corrected tables of mortality, and that I have not over-rated the advantages which may be expected to accrue from them.

I have for some time been engaged, as far as other pursuits

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* An Inquiry into the Influence of Situation on Pulmonary Consumption, and on the Duration of Life: illustrated by Statistical Reports.

would permit, in inquiries which respect the influence of local causes on the human body in different states of health and disease, and in collecting facts illustrative of this influence. But from the defective state of the parish registers, and the difficulty of obtaining accurate returns of diseases in any particular place or district, this is an undertaking, the difficulty of which those only can form an adequate conception of who have made the attempt: and I have frequently, from these causes, had to lament the inability to form accurate deductions, where I knew that they would have been of the most interesting and instructive nature. The REPOSITORY has certainly the merit of first calling the attention of the Profession to the importance of medical topography and statistics; of leading the way in these inquiries; and of inviting communications respecting them: and the call has not been unanswered, though not to such an extent as might have been expected and could have been wished. Many valuable papers, illustrative of this subject, are to be found in its pages; amongst which, those of Dr. Collins, of Swansea*; and Dr. Walker, of Huddersfield†; may be especially particularized. But, notwithstanding the value of these communications, and the talent and industry of their authors, they unavoidably labour under the defects and disadvantages which it has been the endeavour of Dr. B., and I may add of myself, to expose and to remedy.

The Population Returns, our only source of information on this subject, and to which we are referred for much more than they are able to convey, show not only a great and rapid augmentation in the number of the inhabitants of this island, but that the apparent ratio of that augmentation increases also. But I am convinced that no precise conclusions of the progressive rate in the increase of population can be drawn from the simple numerical excess of the births over the burials. The number of those who die beyond the circle of its own coasts, in a maritime country, unequalled in naval, military, and commercial enterprise, whose sons cover the sea, and are to be found in every accessible part of the globe, must form a very large proportion to its whole population. During the late war it may safely be said, that there was scarcely a family in the three kingdoms which had not some of its members employed therein; nor which had not to mourn their loss from the effects of the sword or of disease. From this cause of error alone, there can be no doubt but that the next decade, with a continuance of peace, will present very different results from the last. If to this be added those employed in the merchant service, many of whom must die at sea, or at

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* Vol. iv. † Vol. x.

the foreign ports frequented by them, and the number who annually emigrate to America, or to our own colonies; not to mention those who are sent abroad for misdemeanours, or who suffer the severer sentence of the law at home; a most extensive source of mortality will be found to be cut off from our national returns. I do not hesitate to say, that these returns can afford no certain conclusions on the important question which it is their design to clear up. It cannot be doubted but that the general healthiness of the inhabitants of Great Britain has much increased within the last fifty years; that the rate of mortality is greatly abridged; and that the standard population is rapidly augmenting. But surely, if in applying the results of these inquiries to the discovery of the *rate* of increase, we take into account the augmentation in the number of Dissenters, and the more general custom introduced amongst them, of attaching extensive burying-grounds to their places of worship; the unparalleled naval and military armaments fitted out by this country, and which the epoch of the French Revolution first called forth; the wide extension of our commercial establishments, and the increase in the number of foreign stations maintained by our Government; many of which are situated in the most fatal climates of both hemispheres: we shall find cause to deduct considerably from this apparent rate, and to calm our fears arising out of the prospect of what in the present state of the world, and of this country in particular, must be considered as an overwhelming evil, which the statesman appeared little prepared to expect, or to meet with its appropriate provision.

The object of greatest interest to the medical inquirer, which these returns afford, and to which he will naturally direct his attention, is the comparative healthiness of different divisions, or of different spots or parishes in the country which he inhabits. And, indeed, the enormous disparity between the births and burials which appears in some places, with an annual rate of mortality, varying from 1 in 33 in the marshes of Cambridgeshire, to 1 in 73 in Cardiganshire, will show that the inquiry is not without interest; but he will, on the face of these calculations, be led to conclusions exceedingly fallacious. I am induced to believe that the magnitude of this disparity is more apparent than real. Many causes have already been alluded to which will lead to augment the apparent excess on the side of the births, and to diminish the mortality in equal proportion. To these may be added the migrations which are constantly taking place from country parishes to towns, and from certain parts of the kingdom to others. The parish of Duthil, in the county of Elgin, mentioned in the Statistical Account of Scotland, will afford a

good illustration of this argument, as it relates more especially to the excess of births. The proportion of annual births in this parish is as 1 to 12 of the whole population; and of deaths, 1 to 55; the proportion of births to deaths being as $4\frac{2}{3}$ to 1. It will readily occur to any one at all conversant with such inquiries, that these proportions cannot possibly approach to any thing like the truth. Some of the causes above mentioned must operate here in a very great degree, or the population be found to increase with a rapidity which has no example. The reverse of this last, however, appears to be the case, the number of inhabitants being found to be considerably on the decrease: and the problem would be difficult indeed, were not its solution to be found in the excessive tendency to emigrate which has existed in this parish. The two parishes of Leyzin, in the Alps, and St. Cergue, in the Jura, will afford additional illustration of the little faith which, in particular situations, is to be placed in estimates formed from an apparent great excess of births. It appears from the inquiries of M. Muret in these parishes, that although the healthiness of both is judged to be nearly equal, the proportion of births at Leyzin, which is placed in circumstances which favour a stationary population, is as 1 to 49 only of the inhabitants: while at St. Cergue, the situation of which is favourable to emigration, the proportion is as 1 to 26. It is obvious then, that the medical or political inquirer can draw no certain inferences as to the health or population of any given place, from the mere circumstance of its presenting an apparent excess of births: and I have now to show, that the tables of mortality, as they are generally applied to this inquiry, will serve him very little better.

Since the results of the population returns have been so well known, the annual rate of mortality has been generally assumed as the measure of health amongst the inhabitants of any given place, and the scale by which to compare it with others. Accordingly we have, in different towns, the proportions of 1 in 33, 2 in 43, 3 in 49, 4 in 54, 5 in 56, 6 in 84*, &c., taken respectively as the degree of salubrity enjoyed by each. Now, although a tolerable estimate may be formed in this manner of the relative healthiness of the different counties, or of towns and country parishes, when similarly circumstanced, and compared respectively with each other, it will, I think, appear evident from what has already been said, and from facts yet to be adduced, that no just measure can be obtained in this manner of the absolute degree of health

* 1. Salisbury; 2. Birmingham; 3. Northampton; 4. Huddersfield; 5. Newbury; 6. Swansea.

enjoyed by any particular place; or of its relative share when compared with another in any way differently circumstanced. The following comparison of the towns of Northampton and Huddersfield, and the parish of Kilmington, in Somersetshire, will, I trust, confirm this observation:—

Place.	Population.	Annual Mortality.	Age to which half of the born live.	Number who exceed 70 years of age.
All Saints, Northampton ·	4871	1 in 49	20	1 in $6\frac{1}{2}$
Huddersfield··	11,000	1 in 54	10	1 in $10\frac{1}{2}$
Kilmington···	600	1 in 61	48	1 in 2·97

All of these cannot be correct. It is impossible that the rate of mortality at Huddersfield should be so low as 1 in 54, when the probability of life does not exceed 10 years, and the number who arrive at 70 is only 1 in $10\frac{1}{2}$. If at Kilmington, where the probability of life is 48, and the number who exceed the advanced age of 70 is something more than 1 in 3, the annual mortality falls short of that at Huddersfield by one-twelfth only. The parish of Kilmington is taken from amongst some others, which I have given in the publication before referred to, to show the effect which peculiarity of local situation has on the longevity of their inhabitants. The calculations are taken from a correct table of mortality for ten years; and as this parish is probably as free from the various causes of error as any other in the kingdom, it may serve to show the standard proportion, or nearly so, which should subsist in every place not influenced by other causes, between the rate of mortality and the duration of life of its inhabitants. The calculations for the parish of All Saints, in the town of Northampton, as given by Dr. Burrows, are, perhaps, as correct as those of a considerable town can ever be brought to: and as the probability of life, and the proportion of old people, are so much greater than at Huddersfield; they prove, incontestably, that the town of Northampton, with a rate of mortality equal to 1 in 49, enjoys a degree of health nearly double that of Huddersfield, where the reputed rate is 1 in 54 only.

These facts will, I trust, be sufficient to show the instability of all arguments drawn from such a mode of calculation; and as the town of Northampton is as healthy as any with an equal population with which we are made so well acquainted, it is probable that all those which give a rate of mortality lower than 1 in 50 are incorrect; that few country parishes, with a stationary population, can exceed 1 in 60; and that the proportion of 1 in 73 for a whole county, is next to impossible, and only to be found in such extraordinary parishes as that of Leyzin, where the probability of life is as high as 61 years; indicating a degree of health and longevity hitherto, I believe, undiscovered in Great Britain.

Next to the relative healthiness of different places, as a subject of general interest, and superior in importance to the medical inquirer, is the comparative and local prevalence of particular diseases. But from this inquiry, at least on a scale of sufficient magnitude, he is almost wholly shut out; and it is to supply him with extensive and accurate materials for a perfect information on this subject, that Dr. Burrows has directed his efforts, and projected the only plan which can accomplish it. But our knowledge will still be incomplete, unless, together with the local proportion and variety of particular diseases, we have a ready access to the essential localities of the places in which these varieties are found. The local circumstances of each place necessary to be known, are, the nature of its soil, and of the strata on which it rests; the mean elevation of its surface; its aspect; the annual mean temperature of the air; the temperature and quality of the springs; the quantity of rain which falls, and the degree of atmospheric moisture. Could a ready information on all these points be obtained at any place which it might be thought desirable to subject to such an investigation, results of the highest interest to science generally, and to medical science in particular, and from which the public at large could not fail to derive the most important advantages, might be confidently looked for. In the meantime the defect may be in some measure supplied by the contributions of those who reside in situations which possess any local peculiarity. But I must caution those who may feel inclined to offer communications on this subject, that there are two points of principal interest in the inquiry, in which they may be very likely to err, and, consequently, to lead others astray. These are the elevation of the place, and the relative amount of any particular disease occurring in it. The first is not to be ascertained by the eye, nor the latter by any supposed observations, or concurrence of opinion. Experience has taught me, that no reliance is to be placed on either:—accurate measurements only can determine the one, and accurate returns the other.

I have to request the indulgence both of the Editor and the readers of the REPOSITORY, for this long trespass on its pages. But as it relates to a subject which I have had much at heart; and to the importance of which, the attention both of the public and of the Profession appears to be excited in an unusual manner, I trust that the preceding observations, which have greatly exceeded their intended bounds, may not be without their use.

VIII.

A Remarkable Case of diseased Cranial Bones. By JOHN BURGIS, Surgeon, Drayton.

THE subject who forms the present memoir, is an aged female of upwards of seventy, and who became known to me during my professional calling, as medical practitioner to the parish she resides in, about the close of the year 1816; yet, notwithstanding I regularly attended in the village, and had even visited one of her children in the same house for some weeks with a severe indisposition, many months passed away before the least hint was afforded me, that a disease of so extensive a nature existed, and then it was pointed out by her husband, (not soliciting advice,) but as a matter of curiosity, so little had it ever affected her general health, or interfered with her daily avocations. On removing her head-dress, and a piece of rag slightly smeared over with some mild unguent, the dura mater, with the pulsations of the brain, became immediately exposed, presenting a surface of *fourteen inches and three fourths* in circumference, *four and a quarter* the shortest diameter, or crossways, and *five and a half* the longest diameter, or drawing a line from the occiput to the sinciput. By this admeasurement, the disease must take in part of the *frontal*, and nearly the whole of the *superior plates* of the *parietal bones*, and extend posteriorly to the *lambdoidal suture*.

The dura mater appeared more indurated than natural, and had an asperated surface. There was even a very trifling discharge. The common teguments were curvated upwards and outwards, and universally incrusted with a dry *chalky* substance.

All I could gather in answer to my interrogatories, as to its *cause*, or length of time it had existed, &c. &c. was simply, that it came on imperceptibly some years back, and has been ever since gradually increasing to its present magnitude, attended with no other inconvenience than occasional slight attacks of cephalalgia.

It is now above twelve months since I last saw her, but I understand she is still living, and much as usual.

IX.

A Case of violent Epistaxis. By T. W. Wansborough, Surgeon, Fulham.

A man between sixty and seventy years of age, of a robust habit, ruddy complexion, and general appearance of good health, came for relief on account of a profuse hæmorrhage from the nose. The blood issued in a stream from the left nostril, and nothing that he had tried succeeded in allaying the violence of the bleeding. He suffered, according to his own account, a pint of blood to flow before he applied for medical assistance, as, from the frequent and periodical occurrences of the attack, to which he had been subject for the last five or six years, he was usually able to arrest the progress of the bleeding whenever it had proceeded to the amount of two or three ounces. This attack, however, baffled all his efforts, and obliged him to apply for succour, to prevent a fatal termination. Having thrown open his shirt, and taken off his neckcloth, I proceeded to introduce a pledget of lint into the bleeding nostril, which was no sooner done, than the blood issued from the other. I then introduced a pledget into the latter: this was scarcely accomplished, before the blood issued through the lint, and flowed in a stream from both nostrils. Upon the presumption that I had not introduced the lint sufficiently, after suffering the hæmorrhage to continue a minute, I withdrew the pledgets from both nostrils: the act was followed by a gush of blood, with about two ounces of coagula. After clearing the nostrils, I again introduced two other pledgets of lint as before, but previously saturated with acid. sulphur. considerably diluted, along the flow of the nostrils, and literally plugged them up. Immediately after I had done this, there issued a stream of blood from the left eye down the face. Upon examination I discovered that the vessels of that portion of the tunica conjunctiva which covers the inferior palpebra, were partially ruptured, and that the hæmorrhage proceeded thence, as also, apparently, from the puncta lachrymalia.

Notwithstanding these attempts to suppress the hæmorrhage, it still continued. The action of the sanguiferous system exceeding the natural standard, with a strong full pulse, I bled him in the arm to the amount of twelve ounces. I had the mortification to witness a continued failure. His shirt was now completely saturated in front with blood, and from his restless, unsettled state, the floor of the surgery exhibited the appearance of slaughter, rather than that of accidental hæmorrhage. As a decisive resort, I thought of injecting into the

nostrils some of the same liquid in which the lint was dipped that had been first introduced: accordingly I reduced ʒii of diluted sulphuric acid with ten of water, and immediately upon withdrawing the pledgets from the nostrils I injected the mixture into them rather forcibly; (by the term forcibly, I imply sufficiently strong to convey the mixture to the extremity or posterior opening of the nares;) this was effected, as the patient perceived the liquid in the fauces. The effect was sensibly felt; insomuch, that after injecting each nostril once, he refused to have it repeated: with much persuasion, however, I prevailed, performed a second injection as successfully as the first, and introduced fresh pledgets dipped in the same mixture. In the space of two minutes the hæmorrhage abated from a stream to drops; and such was the efficacy of the remedy, that in a quarter of an hour it completely subsided, and he was enabled to leave the house, without any other inconvenience from the attack than a trifling debility. It were almost superfluous to state that the primary indications of cure in such cases were adopted, as cold to the neck, face, nostrils, vinegar, &c. &c.

The patient was seated in a full current of air during the latter part of the operations. He has since remained perfectly free from any ill effects; in fact, he resumed his occupation, as a labourer, the next day. I have seen him several times, and he says he is as hearty as ever; indeed his countenance confirms the assertion.

X.

A Case of undetected Fracture of the Clavicle. By Thomas Bartlett, Surgeon, Medical Society House, Bolt Court.

Some apology may be necessary for calling the attention of the readers of the Repository to a short statement of a fact, which has recently come under my particular observation; from which I hope it will appear, that it is highly blameable for surgeons to pass a decisive opinion, even in apparently the most common occurrences, without careful investigation and deliberate consideration.

A lady stepping from her carriage, slipt her foot and fell: the shock was principally received on the left shoulder, and caused exquisite pain. On the arrival of a practitioner, she laid bare her shoulder for his examination, when he assured her it was only a sprain, and by the use of such applications as he would send, and the constant exercise of the arm, she would soon recover from the inconvenience. Three weeks she passed, to use her own words, "in misery;" for on the least attempt to move the arm the pain was extreme.

At this time I was requested to see her, and immediately on placing my fingers on the clavicle, felt the fracture, even through her dress. The usual bandages were applied, and after six weeks the use of the arm was perfectly restored.

However simple and obvious the above case may seem, it is to be feared that accidents of this nature are too frequently disregarded; and that a fractured clavicle is not seldom overlooked, until it is too late to be remedied. If the above record should serve to induce more caution in reference to this particular, the writer's end will be answered.

PART II.

ANALYTICAL REVIEW.

I.

Transactions of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland. Vol. I. Dublin, Cumming. London, Longman. pp. 505.

If the multiplication of books be an evil, it is not of such books as the one now before us. Indeed, were there more "Transactions," and fewer "Treatises," the Profession would be benefited, and the toil of reviewers diminished, although printers might complain and booksellers bewail. The respective and respectable writers whose several communications constitute together a volume like the present, are in course engaged in no pledge for a prescribed number of pages, and are not therefore, as is too frequently the case with formal authors, under the necessity of introducing matter as much to fill a vacuum as to convey information. Not to say that the respectability of the Committee of Inspectors who are appointed to the superintendence of these miscellaneous works, constitutes, in some sort, a guarantee for the worth of the materials of which they are made up, though sometimes we fear the disposition of censors to oblige predominates over their desire to select. On this score, however, we have not much to complain in the volume now to be reviewed, and we hasten with pleasure to analyze it to the extent of our limits.

The paper which appears first in the present series of interesting communications, is a case of ulceration and rupture in the stomach, communicated by Dr. Crampton: it was attended with agonizing pains in the whole abdomen, which seemed to originate from the pit of the stomach. This case

was exceedingly rapid in its termination. It was at three o'clock in the afternoon that the patient was first seized with "spasm," as she called it, at the stomach: there was now no irritation in the pulse, and the tongue was clean; but by ten o'clock the same night the pulse beat 120, and the breathing became hurried; and at twelve o'clock the pulsations could scarcely be felt. Her stomach did not reject either drink or medicine; and she expired in agony at three o'clock in the morning. This lady had long been subject to pain in her stomach and both sides, which generally gave way to medical treatment of a few days.

Dr. C.'s attention was particularly excited to the extraordinary circumstance of the stomach retaining every thing that was given, notwithstanding the extreme degree of irritation; but dissection in some measure accounted for this, for it was found, that what was received into the stomach made its way "into the cavity of the abdomen through a round aperture situated at the anterior surface at the union of the cardiac and pyloric portions."—"This perforation was perfectly circular, about the size of a large pea, and appeared to be the result of an ulcer on the mucous surface, which had gradually penetrated the other coats." It appears that death took place not altogether from rupture of the stomach, but from peritoneal inflammation, excited by the food and medicines getting into the cavity of the abdomen. For the last three years the subject of the above disease had seldom been altogether free from pain in the stomach; and Dr. C. thinks that the chronic inflammation which thus, at length, terminated in abscess, had been increased by the practice the patient was in of taking lavender-drops and other cordials, in order to relieve pain.

The second case (transmitted by Dr. Stoker) is instructive, inasmuch as it shows the extent to which internal mischief may be carried, while, by a superficial observer, nothing organic would be suspected: but still in these instances, even though there should be an increase of flesh, as was actually the case in the example before us, there is a something preying upon the vitals, which may be detected by minute and practised observation. At first a pain in the side was complained of, extending from the right hypochondrium to the epigastrium and right shoulder, with other marks of hepatic affection. "About twelve days previous to the present illness a bilious diarrhœa had taken place. Upon the decline of this, costiveness and dyspeptic symptoms were observed. It was on the 27th of October, 1808, that Dr. S. first saw the patient, and the symptoms of the disease were so much got under, that with varied health he lived till September 1810; and early in

the summer of that year had such an appearance of recovery as raised the most gratifying hopes amongst his anxious friends: *there were, however, but too many signs of unsubdued disease to excite the alarm of a medical observer.*" He had still occasionally *rigors*, with evening exacerbations, loss of rest, and dyspnœa. "On the evening of the 3d of September he felt himself much oppressed on returning from dining abroad, and took an emetic draught, which did not operate in the usual way, but was followed by headach, delirium, and symptoms of suffocation." He died in a few hours afterwards.

After death the body and limbs were without emaciation; a slight fluctuation was perceptible upon placing the hand over the epigastrium and right hypochondrium. There was an abscess found in the superior part of the abdomen, enclosed in a cyst, which cyst "extended superiorly from the left lobe of the liver to the diaphragm, laterally to the superior part of the stomach and to the spleen, and inferiorly to the upper part of the small intestines." The liver was much enlarged, of a pale colour, and firmer than natural; but it was not the seat of any part of the abscess. A rupture was discovered in the upper arch of the stomach, and immediately above "a large opening in the diaphragm was found, apparently of long continuance, as its margin was cicatrized. This extensive opening communicated with the cyst of the abscess, with the stomach, and with the cavity of the thorax." The substance of the lungs was much wasted, and they adhered to the diaphragm; "surrounding the ruptured aperture, they had formed disorganized masses, which were now in a semi-putrid state." The heart itself was free from disease, but the pericardium exhibited marks of inflammation. It was remarkable in this case that there was a peculiar carneous odour at times exhaled from the breath; and Dr. Percival observed to Dr. S., that he had lately met with the same in a case, where, on examination after death, the diaphragm was found ruptured.

The next case, related by the same Physician, was imagined at first to be a dropsy of the ovarium. The patient was thirty-seven; had been generally healthy till within the last three months, but was not so well as usual at the birth of the last child. Her catamenia ceased, she felt sickness of the stomach, was averse from exercise, had urgent thirst, and her urine was scanty. Swollen legs in the evening, which after some time continued through the day. "About two months since she felt a considerable swelling, which seemed to arise out of the pelvis, extending at length from the left side of the pelvis to the umbilicus; not painful on pressure." Pills were tried, composed of guaiacum, calomel, soda, aloes, and oil of sassafras, and mercurial ointment was rubbed over the tumor every

night: afterwards draughts of acetated kali, tincture of senna and manna, " and a bandage of flannel nine inches broad, and sufficiently long to pass twice round the middle, to be used as tight as could be conveniently borne, with a pad underneath, about the size of the tumor itself, applied as a compress." This patient got well under this plan, with an addition of pills containing one grain of digitalis and three of the pil. hydrargyri, with the occasional interposition of Epsom salts. The stools which were passed as the tumor lessened were " grumous, dark, and gelatinous, but without pain. The disease lasted about two months from its commencement.

The case immediately subsequent to this is likewise one of a tumor in the abdomen. The subject of it was aged forty. She first complained of severe pain in the umbilical region; bleeding and other remedies only gave partial relief. The tumor, which was now discovered on the left side of the abdomen, was about the size of an infant's head: " it is painful on pressure; bowels very costive; urine scanty and high coloured. The countenance is anxious, debility extreme, the patient can only lie on her back. Pulse 130, and small." Purgatives and bandage were here employed, with camphor, hyoscyamus, and digitalis; mercurial ointment with camphorated oil rubbed over the tumor, " and the belly steeped with flannels wrung out of hot water and spirits." Green acid stools were discharged in this instance, and the tumor gradually disappeared.

Dr. S. infers from the connexion of the subsidence of the tumors with the particular discharges from the intestines, that an opening was made into some part of the canal, through which the contents of the swelling found an exit. In our minds, however, this circumstance appears to be at least doubtful, and we should rather ascribe the remedial operations of nature or medicines to the absorbent faculty, which operates in a manner, at present, totally inexplicable. A case has recently come under our inspection, in which, according to the representation of the female who is the subject of the disorder, swellings in the ovarian region often take place, and when they subside, the urine contains a purulent matter, which the patient believes (and she is most probably correct,) to be the matter of the subsided swelling.

Dr. S. next narrates a case of " aneurism of the gluteal artery, on its passing outside the pelvis, and which had acquired the size of an orange." This was treated by Mr. Richards at first with compression, which prevented its further extension, but did not diminish it. The pressure was ordered to be continued, and, together with laxatives, digitalis was given so as to produce a decided effect in controlling the

circulation. Under this treatment the size of the tumor began to diminish, and it was removed in less than fourteen days. Another aneurismal tumor of the brachial artery, situated in the bend of the left arm, was treated in the same manner, and with the same effect.

A case of suppuration of the liver is next detailed by Dr. John O'Brien, in which " an opening was made with a lancet in the lower part of the abscess, and about four pints of a dark brown, or coffee coloured fluid, occasionally mixed with pus, were drawn off from the wound." The patient died on the sixth day from the operation. The cavity of the abscess was found to involve " the greater part, perhaps two-thirds of the entire substance of the liver;" and " the portion of liver which remained was interspersed on its surface with small yellow tubercles." The disorder in this case appeared to be immediately brought on by a distended stomach, as the pain, preceding the suppuration, first occurred after a hearty dinner of salt pork and greens, with butter milk. The subject was a young woman of 18, and she had never been addicted to drinking. Another case of suppurated liver is stated by the same author to have occurred in consequence of pregnancy: thus further establishing the principle, that mechanical pressure is equal to the production of that irritation, which, unless subdued promptly, may end in abscess. The tumor was in this instance likewise opened, and the patient died. Dr. O'Brien observes, that " where the abscess is not merely confined to the investing membrane, but involves the substance of the liver to any extent, it is probable an operation will never succeed; and I think (he further says,) it is doubtful whether it does not hasten the patient's death." We conceive that in this supposition he is correct; and we think with him, that " the safest course is merely to assist nature by an emollient application in her efforts to discharge the matter externally, or at least to delay an operation as long as possible."

In the " dissections of two habitual drunkards," described by Dr. Samuel Black, the variety of appearances are strikingly displayed, which occur in different habits from the same exciting causes of disease. In one, a man aged twenty-seven, the liver was found contracted to less than half its natural size; and in the other, a shoemaker, of sixty-three, the organ was very considerably enlarged.

By the same author we have next the detail of a gouty affection, in the course of which " a swelling appeared below the left hypochondrium, rather higher than the umbilicus, but extending towards it." It " at first appeared to come and go, but afterwards became stationary. At length fluctuation was discoverable, with scanty urine, and severe palpitation from

the slightest exertion. Calomel, digitalis, the supertartrite of potass, and other diuretics, were employed. He died in about a month from the appearance of the swelling. An immense tumor was discovered upon opening the abdominal cavity, "which was of the size nearly of a man's head, extending from the left hypochondrium to the os ileum. It appeared originally to have sprung from the mesentery, but was now intimately connected by adhesion with all the circumjacent parts." It exhibited the appearance of brain, "and appeared to belong to that species of tumor to which Mr. Abernethy has given the name of medullary sarcoma;" the usual seat of which is external. The general organization of the viscera was very little affected, but extensive membraneous adhesions existed between them, and there was a considerable serous effusion into the cavity of the abdomen, and a fluid to the amount of four ounces in the pericardium.

The case of hepatic disease affecting the uterine system, related by Dr. Mills, does not, to our conception, appear clearly of this consecutive kind. The bilious symptoms and mucous discharge from the vagina seem to have been simultaneous, and most probably both originated from one general source, namely, scrofulous torpor.

Next follows a remarkable case of hydrocephalus internus in an adult, in which, although the patient died, much temporary service seemed to be occasioned by the administration of Dover's powder in fifteen grain doses, at times, every third hour. Dr. Brooke, the narrator of this case, conceives that *sudorific* opiates in brainular disorders may be often administered with much advantage. This patient took, "from the 15th to the 28th of the month, fifty-eight grains of opium, as contained in the Dover's powder; two ounces and two drachms of the strong mercurial ointment were well rubbed in, and thirty-four grains of calomel given internally, without producing any apparent effect." This case was remarkable from the circumstance of the disease pervading the family of the sufferer. He himself was twenty, and he apprehended the event "from having lost by the disorder four brothers at different periods of infancy and childhood, and a sister at the age of twenty-seven." It was further remarkable, from the sensorial functions being so little disturbed, notwithstanding the extent of inflammation and quantity of effusion that were found upon inspection after death. "He saw, heard, tasted, and felt with the usual accuracy to the last moment, nor was one of the sphincters even relaxed. We neglected to inquire about his smell."—"The parents of this family of children are both healthy, nor did they ever hear of water in the brain until it occurred among their own children."—"The father a

few years before his marriage received a very violent blow across the upper part of his nose, by which he lost a quantity of blood. Soon after a cataract appeared on one of his eyes. He was couched, and recovered: the other eye is now blind from the same cause."

The paper immediately succeeding to the above is entitled, "On the Use of Oxygen Gas in Angina Pectoris, by Dr. Peter Reid." Those suffocating sensations which occur in cardiac affections, and the explanation of which is in general sufficiently obvious, seem to call for blood-letting in order to give immediate relief. In these chronic ailments, however, repeated venesections are liable to great objection, from the tendency of this practice to increase eventually the evil it thus for a time removes; and old fashioned as we may appear in recommending caution in this particular, we must encounter the obloquy for the sake of maintaining what appears to us to be truth. If oxygen gas, as in the case before us, shall be shown by further experience to be "capable of superseding the operation of the lancet," we should incline to prefer its inhalation as a temporary expedient to repeated and profuse bleeding: not that we are to be frightened out of our senses by the sight of the lancet, or to denounce it, with one author, as "a minute instrument of mighty mischief." All that we desire is to see a regard paid to the future welfare, as well as present relief, of chronic invalids.

Dr. Reid has further favoured us with some remarks on the nature and treatment of Tetanus, in which he endeavours to prove that the malady "has its principal seat in the membranes investing the nervous mass of the spine. This theory he founds upon the actual appearances of some subjects which he examined after death, when he met with the viscera and the brain free from diseased indications; but serous and sanious effusions, with other marks of morbid action in the blood vessels, were perceived in the spinal chord. When the malady had been more acute and violent, the effusions were of blood; "when of a less urgent and more chronic nature, of a watery fluid." The following are the remarks with which this paper concludes:—

"In the treatment of tetanus, the morbid appearances above related would seem, at first view, to indicate blood-letting as the principal remedy. There are, however, many arguments which would prove the impropriety of such an operation in this disease. We know that by general bleeding, the sanguiferous system of the brain is principally affected; by which means the energy of that organ may be diminished even so far as to induce syncope. Now in relating the phenomena of tetanus, I have shown that the nervous system of the brain seems to resist the disease. By abstracting blood, therefore, it is pro-

bable we weaken one of our most powerful antagonists to the morbid action, and thus diminish our powers of resisting the general destruction.

" Experience also shows, that when blood has been drawn, it has at least done no good, and seldom or never exhibited that buffy coat which is so generally met with in all other inflammatory cases.

" Hence, then, according to these views, our first proceeding in the treatment of this disease should be to apply a blister to the whole length of the spine, and to act on the bowels by powerful cathartics. We should endeavour then to produce copious perspiration over the whole surface of the body, by means of active sudorifics, particularly those recommended by Dr. Latham, in cases so well related by him in the Transactions of the London College of Physicians*.

" There are many other circumstances relative to diseases of this system which I have not yet arranged, and especially with regard to the means of judging when we are to apprehend the approach of tetanus; as we know that a wound, however lacerated, will often not produce the disease, while the slightest scratch may excite it."

There can be no doubt that the appearances described by Dr. Reid do often take place in tetanic irritation; but we conceive that it is rather generalizing too largely to suppose the invariable occurrence of this spinal affection: and we are further disposed to imagine that this vascular irritation, when it does exist, is to be viewed frequently rather in the light of effect, or consequence, than absolute essence of the complaint. When large doses of opium have proved successful in subduing tetanic irritation, have they not effected the cure by so operating upon the spinal medulla as to prevent the occurrence of this morbid state of vessels? the disease being primarily constituted of some change in the nervous chord itself, and not in the circulatory system.

" Three cases of melæna" occur next in order, recorded and commented on by Dr. Brooke, " in which the most decided good effects appear to have been produced by the exhibition of the oil of turpentine." In regard to the first case, Dr. B. remarks: —

" Aware of the efficacy of oil of turpentine in those complaints which are supposed to depend upon an increased action of the capillary vessels of the mucous membrane of the stomach and intestines, I determined on giving it a trial, and accordingly ordered twenty drops, made up with cinnamon water and syrup of orange peel, into a draught, to be repeated thrice a day. On the second day after com-

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" * It is a curious circumstance, that we can produce this disease by artificial means: for when an animal has been decapitated, if we instantly introduce a slender wire down the spine, so as to irritate that nervous system without compressing it, the muscles of the animal are immediately thrown into that state which is peculiar to tetanus."

mencing the turpentine, the stools became natural, and not an appearance of the pitchy matter was afterwards to be detected. The turpentine was continued for nearly three weeks, although the melæna appeared to have been entirely cured by the first few days of its exhibition: the gentleman was prejudiced in its favour, and there appeared no reason for not indulging him."

The patient died.

There is one remarkable feature in this case, namely, the comparative inertness of opium during an acid condition of the stomach, indicated by heartburn; when this last symptom was subdued by magnesia, opium then, and not till then, abated irritation, and induced sleep. This fact we have thought worth particularizing, as indicative of the power of acid on the narcotic properties of opium, and serving to point out the necessity of attending to the state of the stomach, when calculating upon the effects of this singular drug.

The second and third cases detailed in this paper did well under the use of the oil of turpentine.

Our readers are aware that in the instance of black discharges by stool, there is not seldom some difficulty in determining both their actual nature, and the precise parts from which the dark coloured matter proceeds. It should appear sometimes to be made up of blood which has issued from ruptured vessels about the spleen, or stomach, or other viscera, and at other times to partake more of a bilious character, forming the black bile of the ancients. Hence the distinction of melæna into sanguinous and bilious. The attendant manifestations of disorder, for the most part, throw some light upon the nature of the matter discharged; but when there remains still any doubt on this head, attention to the following remarks may serve to assist our diagnostic inferences:—

"I owe it to the ingenuity of my scientific friend, Doctor Egan, to remark, that if the two distinct states of melæna, sanguinous and bilious, as detailed in the foregoing cases, really exist, it is clear that an early discrimination of them must be of consequence, more particularly as the one is so much more curable, or within the reach of art, than the other, and besides, admits of more energetic means of relief: to obtain this end, therefore, it appears to me, that nothing more is necessary than the examination of the dejections, by submitting them to the action of boiling water.—If sanguine, the lymphatic and fibrine parts will be coagulated, and precipitated in clots, that will not pass the filter. If *bilious*, the entire will quickly dissolve, will communicate to the water a yellow tinge, and will easily and wholly pass the filter. This, or some other mode of distinction, would appear the more necessary, as the bile, in its various forms of morbid degeneration, so often assumes that very black colour which induced the ancients to call it atra bilis, and which, in appearance, so much resembles blood. It is, however, possible, that where the sanguine dis-

charges have been so long retained in the intestinal canal as to emit, on their evacuation, a considerable fætor, indicative of a previous chemical decomposition, that the blood may, in such cases, have entirely lost its property of coagulating by heat: on such occasions, the peculiar fætor of putrid blood, and the tinge given to boiling water, would seem to be our best discriminating guides."

Dropsy and apoplexy are the next topics of investigation, in a paper by Dr. Stoker; the scope of which is partly to prove that dropsical effusions arise often from inflammatory irritation. But, says Dr. S——,

"The dropsy, that so frequently attends on diseased states of the liver, arises probably from an interruption of the necessary assistance to sanguification which takes place in this organ in health: many considerations induce me to believe that the chief use of the liver is to bring the hydrocarbonous principles, with which the blood in the vena portæ is charged, more nearly to the state of fat, thereby rendering the blood better prepared for the changes it has to undergo in the lungs, as well as to provide for the due supply of fat in different parts of the body, for which we find no other secerning organ appropriated, as we do for the other fluids; and such might be supposed an adequate employment for so extensive and complex a viscus, whilst the mere secretion of the bile, hitherto deemed its only use, might be supposed rather secondary or residual; a secretion which is not always necessary even in warm blooded animals, as some are destitute of any organs for its reception."

This theory, however, appears to us to be of a somewhat fanciful cast, and we should be disposed to attribute hepatic dropsy rather to an extension of the erythematic irritation, brought on by causes which produce diseased liver, or to abdominal venous congestion, and consequent irritation, arising out of that obstruction to a free flow of blood through the branches of the vena portæ, which is the effect of diseased liver. Obesity is often the result of indolence, without any attendant indications of hepatic derangement.

Dr. S.'s patient having been relieved of pulmonic and dropsical affection by repeated bleedings, became, after convalescence, suddenly apoplectic, and hence our author takes occasion to introduce the following remarks:—

"On the second part of this paper on apoplexy, very few general observations must suffice: it is, perhaps, instructive, as it shows that bleeding, which is by some recommended as a prevention of that disease, may be prejudicial, as in this instance it seemed to increase the rapid tendency of the animal economy to make blood, as well as to its unequal distribution, which may be deemed, if not the proximate, at least the exciting cause of apoplexy."

A case of Dr. Grattan's next occurs, proving, in a remarkable manner, the good resulting from bandaging, in chronic

rheumatism, in the way recommended by Dr. Balfour, of Edinburgh, in his recent treatise on that subject.

Since the very general adoption of those views of pathology and practice that are founded upon chylopoietic sympathies, some physicians seem almost to have forgotten that idiopathic affections of important organs can at any time have place. Dr. Crampton has, however, in the present volume, given a case of hydrocephalic irritation of a very violent degree, which appeared to arise from disease in the head, independent of any affection of the digestive organs. In this case very large bleedings, both topical and general, were employed, and in the course of the complaint, which lasted two months, 402 grains of calomel were given, with 26 of opium, 27 of digitalis, and 112 of James's powder. The patient was a youth of 12 years of age. He completely recovered.

The next paper is a short one, consisting first of a case of abscess in the liver, which proved fatal, after having been opened, with apparent benefit for a time; and secondly one of an enormous distension of the colon, by "sixteen pounds of malæna." There was in this last case a stricture of the rectum, which probably had a very principal share in occasioning this morbid condition of the bowels. These affections of the rectum, we apprehend, are too much overlooked in general practice; and the writer of this paper justly observes, that "we are indebted to Mr. Copeland for directing our attention so particularly to the importance and frequency of this complaint."

We are sorry that our limits will not allow us to notice the next paper in a manner which its importance demands. It is "a case of complicated dropsy, and dissection, with observations by Dr. M'Loghlin." The disease began by a sense of oppression, fulness, and acute pain of the abdomen, with cough, vomiting of a matter with an urinous taste, dysuria, and a scalding sensation in the urethra. It continued from March 21 to July 25, when the patient died. Upon opening the body every viscus of the abdomen was found more or less disordered, and the aqueous contents of the abdominal cavity amounted to about sixteen quarts. The uterine system was especially diseased with abscesses, hydatids, and dropsy of the ovaria. One of the principal difficulties attending the rationale of this remarkable case, was, that notwithstanding the obliteration of the ureters, large quantities of water were occasionally discharged from the urinary bladder. Dr. M. has recourse to the Darwinean theory of inverted lymphatic action, in order to explain this fact; but we apprehend that such inversion, allowing its occurrence, would not satisfactorily account for the phenomenon, not to say that its possibility is more than questionable. Animal excretions are in fact very

often attended by circumstances of much mystery. By what law, hitherto discovered, of absorption, or of communication of matter from one to another part of the frame, can we account for the appearance of the contents of a subsiding abscess in the urinary discharge? Who can explain the fact which occurred in the case before us, of urinary taste in the mouth, in connexion with dysuria? and, if we are to credit the testimony of respectable authors, the mammæ have occasionally proved exits for menstrual secretion. Will inverted actions of lymphatic branches solve these enigmas in pathology, or must we not rather place them, at present, among the arcana of Nature's economy? In endeavouring to strain at explication, more harm than good is often done to the cause of real science.

We now take our leave of this instructive volume, deferring a consideration of the concluding papers on fever to another opportunity. It behoves us, however, before we conclude, to complain, as critics, of the abundance of typographical and other errors with which the volume abounds. Some of these we began to note down, but soon relinquished the task as too burdensome. Suffice it then to say, that we never witnessed any instance of so reputable a book having been so disreputably marred by such stains as those to which we now allude.

II.

Practical Observations on the Action of Morbid Sympathies, as included in the Pathology of certain Diseases. In a Series of Letters to his Son, on his leaving the University of Edinburgh, in the Year 1809. By Andrew Wilson, M.D., Kelso. Edinburgh, Constable. London, Longman. 8vo. pp. 487.

To the word sympathy, used in too sweeping a manner, we have nearly similar objections with those that have already been more than once advanced against the vague employment of that voluminous expression, "the digestive organs." With Dr. Wilson's suggestions, however, we fully accord, that much mischief has crept into the theory and practice of medicine, from insufficiently appreciating that astonishing bond of sentient connexion which exists between different and distant portions of the living body. But, on the other hand, when these sympathetic doctrines lay hold on the imagination of the Physician, they are apt so fully to occupy his sensorium, as to leave no room for the admission of any other principles either of rationale or practice. And we are com-

pelled to say, that while perusing the pages of the author before us, we have met (in connexion with a great deal that is admirable,) with some cause of complaint on the head now referred to. *Every thing* is consecutive and sympathetic. Even the existence of idiopathic disease is scarcely allowed.

We shall present our readers with the table of contents attached to the present volume, by which they will perceive that topics of no mean interest are brought under discussion; and for the most part the dissertations are marked by a philosophical spirit, as well as conveyed in perspicuous and easy language. Here and there, indeed, we meet with expressions that our acquaintance with the English language had never before discovered: a little *Trans-tweedean* phraseology also now and then presents itself; and for so sensible a man, and so able a writer as Dr. Wilson, to torture substantives into an adjective position and signification, appears extraordinary. "Unacquirable" and "morbibity," may be adduced as specimens of the first particular; "very late of being called," and "notwithstanding of," will serve to substantiate the second charge; and "humor pathology," with "surface spasm," are instances of the last of our author's peculiarities and faults in composition.

The contents are as follow.—General Observations. On particular Morbid Sympathies. On Febrile Diseases. On a Febrile State, as excited by, 1st, Gastric Irritation; 2dly, Organic Obstruction; 3dly, Infection, including Typhus Fever, Exanthematæ, and Intermitting Fever; 4thly, by Mental Emotions. On Ætiology of Fever. On Influenza. On Rheumatism. On Gout. On Erysipelas. On Angina Pectoris. On Cynanche Trachealis, or Croup.

In the general observations, we meet with the following aphoristic inferences, which Dr. Wilson states to be "as demonstrably true as any axiom in geometry."

"1st. Irritation applied to certain parts of the body can excite painful sensations and morbid action in a distant organ, by the operation of the law of sympathy inherent in the nervous system; this frequently occurring while the mind remains unconscious of any uneasy feelings at the place where the irritation is applied. 2d. Morbid sympathies are sometimes attended with pain, and sometimes not. In the latter case, the morbid effect consists either merely of an augmented action of the natural powers of the sympathizing organ; or else, as happens at other times, the natural healthy powers are thereby impaired. But when an action of morbid sympathy rises to the height of exciting involuntary spasm in a muscle, in a portion of a muscle, or in the fibrous texture of a membrane, it is uniformly attended with more or less of painful sensations in the sympathizing organ, and there occasionally in a severe degree. 3d. When a mem-

brane is the seat of sympathetic spasm, the circulation of that membrane is frequently influenced in such a manner as speedily to produce inflammation, more especially in those of a firm texture."

We question whether the second and third of the above data are quite so absolute and unexceptionable as we are taught by Dr. Wilson to believe: sympathetic spasm will be occasionally produced to a very considerable extent without the simultaneous production of painful feeling, as may be instanced in those irregular actions in the respiratory organs which constitute a paroxysm of spasmodic asthma. This state is, to be sure, not unattended with painful, or rather with oppressive and distressing feelings; but such feelings merely arise out of the obstructed function consequent upon the morbid state of parts, and are not the direct results of such condition of these parts as is supposed under these circumstances. Here, too, a membrane may be said to become the seat of sympathetic spasm without inflammation of such membrane being the "speedy" consequence; for an individual shall, for a series of years, be the subject of asthmatic attacks, while the pulmonary organs shall otherwise preserve their integrity; that is to say, during the intervals of the fits of spasmodic asthma there shall be all the evidence which symptoms are capable of giving us, that the pulmonary membranes have not undergone that change which is almost inevitably the result of chronic or of repeated inflammation. To our conception then it appears, that spasm may exist without pain, and that it may continue and recur without necessarily occasioning that altered state of the vascular impetus and condition which constitutes absolute inflammation. Temporary congestions may indeed be regarded as almost demonstrably arising out of that interrupted series of organic movements by which spasm is formed; but mere vascular congestion, and absolute inflammation, ought ever to be viewed as essentially different states. The latter may grow out of the former; but still, when it does so, it is a condition of vessels and a kind of action very different from that which has been its cause. It is a new and distinct species of morbid being.

The establishment of the febrile state as dependent upon sympathetic laws, is the first point of discussion with Dr. Wilson, and he announces the following "primary distinctions of fevers, as derived from remote causes within the body:"—

"1st. As derived from the effects of acrid matter applied to some department of the nervous system, and exciting a morbid action of the heart and arteries by morbid sympathy; but such a remote cause, experience shows, is most commonly seated in the digestive organs.

" 2d. As derived from the effects of irritation arising from organic obstruction somewhere existing in the body, and exciting increased action of the heart and arteries by morbid sympathy.

" 3d. As derived from the effects of something of an irritating nature received into and circulating with the blood, being thereby directly applied to the internal surface of the heart and arteries.

" 4th. As derived from passions of the mind exciting an increased action of the vascular system by morbid sympathy.

" 5th. As derived from two or more of these primary causes of fever acting at the same time."

The first of the above phenomena, or gastric fever, Dr. W. states to be by far the most general; " and the pathology and attending morbid sympathies of gastric fever" he conceives to stand thus: —

" In consequence of certain acrimonious matter being applied to the nerves of the inner coat of the stomach and intestines, a sympathetic affinity takes place betwixt that organ and the vascular system, whereby the natural action of the heart and arteries is accelerated, and the velocity of the circulation is of course increased. This, in the next place, is succeeded by a train of uneasy sensations, resulting from the excessive action of these vessels, and a velocity in the current of blood beyond what is consistent with health."

" In this species of fever," our author adds, " no poisonous effluvia has been received into the body; and the first signs of any departure from health are all of that kind which point out impaired action and morbid irritation in the digestive organs. In these organs, then, we may very reasonably expect to discover the cause of the evil, or remote cause of the disease." There certainly cannot be a question that a deranged condition of the primæ viæ may, under some predisposing circumstances of the frame, be equal to the excitation of febrile disorder; but we are disposed to think that what is by many considered gastric fever, has often an origin wide of the stomach, and that the impaired or morbid actions of this last organ are not seldom consecutive when they are adjudged to be primary. Even when fevers, or other disorders, are terminated by offensive discharges, we imagine that the matter thus thrown out of the system is erroneously conceived to be the offending material, and that its discharge is often as much consequence as cause of returning health; it is a something secreted during the morbid processes that are going on in the interior. We all know (though the fact in pathology is not duly appreciated) what momentary changes the organs of secretion and excretion are obnoxious to from several sources, not merely internal, but exterior. An offensive breath will sometimes be immediately produced by the hearing of unpleasant news; and

blows upon the head, as well as epileptic fits, are often followed by alvine discharges of a very offensive nature. Here, then, the affections of the head, or the nervous system, are the causes, not the effects of these acrimonious effetæ; and it is presumable that fever, though certainly at times both excited and kept up by their presence, is occasionally the process by which they are elaborated. We have merely ventured to throw out these hints for the purpose not of cavilling at what Dr. Wilson advances respecting the sources of gastric fever, but merely to caution against that wholesale inference which determines on the cause of disease solely from the appearances that are assumed in the course or upon the solution of such disease. In this respect it appears to us that our gastric theorists of the present day fall into exactly the same error with the ancients. Melancholic torpor, for instance, is often accompanied by a visible and marked change both in the quantity and quality of the biliary secretion. Hence did our forefathers in medicine metonymically conjecture that this state of bile was the cause of the mischief. There is still no doubt that its reabsorption or regurgitation increases the evil from which the vitiated secretion sprang; but it is a something beyond either bile or liver that is radically and primarily at fault: and so in fever, the series of morbid action commences and proceeds before the gastric irregularity, to which all is ascribed, comes to have place. We do not deny that purging is one of the most efficient means of subduing febrile action; but the effects of purgatives are not merely that of mechanically dislodging extraneous and offending matter, for the very act of catharsis is one of the most general and diffusive of any that it is in our power to set up. By it the blood vessels become emptied, the glandular and secretory systems excited, the surface of the body freed, and the whole system changed; and it is thus that its anti-febrile and anti-inflammatory effects are brought about; not merely because a something is expelled the intestines, which before the intestines had contained*.

In consistency with the theory we now advocate, of a change in the sentient organs as prior to and the occasion of ventricular disturbance, we may adduce the phenomena of intermittent fever, the rationale of which is described by Dr. Wilson in the following terms: —

"The primary irritating cause within the stomach having acquired the height of acrimony which is requisite to excite the general sym-

* When a febrile paroxysm is resolved by nauseating doses of emetics, or when its violence yields to venesection, what becomes of this supposed *materies morbi* in the first passages?

pathetic influence, violent headach ensues, attended with some confusion of ideas, and the brain itself appears to be the first link of a chain influenced by this morbid sympathy."

This organ (the brain) not only seems to be, but actually is, the first link of the chain in question, and every thing else is subordinate and consecutive. If we had no other proof that this was the case than the well known fact of the sanative operation of mental impulses, that in itself would be sufficient to establish the order of sympathetic associations now contended for. A confirmed ague, we all know, has many times been charmed away by an impression made upon the mind of the sufferer, without any immediate counteraction of stomach ailments, and without the exhibition of evacuating agents of any kind whatever.

"That the primary cause (says Dr. Wilson) of intermittent fever is seated in the digestive organs, is probable from the therapeutic practice, which long experience has determined to be the best; and is greatly confirmed in the conclusion which, on reasoning from practical experience on the subject, you are necessarily led to draw. In the first place, the great benefit derived from the effects of repeated emetics in relieving ague; by the operation of which emetics, great quantities of offensive matter are always discharged; and from the circumstance of an emetic greatly lessening the violence of a succeeding fit, when exhibited a short time before its expected approach, it is a fair enough inference to conclude, that something, or a part of something, is thereby thrown off, which had previously acted as a very efficient agent, during the preceding paroxysm."

But, we would ask, what becomes of this something when the disordered actions are arrested in the manner just referred to, by mental impression; or when bark, opium, and arsenic, prove remedial? The fact is, that the prime and principal action of an emetic is to give that kind of concussion to the whole frame, by which the series of morbid concatenation becomes broken, and healthy actions take the place (during the bustle and commotion that is excited,) of the former diseased ones. How this is done we cannot explain, nor do we gain one iota either of actual knowledge, or of precision in theory, by introducing an ideal entity under any denomination whatever, whether we call it vis medicatrix, or anima, or natura, or any thing else.

So much for Dr. Wilson's assumptions in respect of fever as caused by gastric irregularities. We next come to the consideration of "the febrile state as derived from an idiopathic organic obstruction, as its primary or remote cause:"—

"This, (says our author) as well as the former, gives a state of fever, originally flowing from one unassociated cause acting in the system. Under this head are included, in the first place, all topical inflammations which are idiopathic, from whatever occasional source

they may be derived; such as direct local stimuli, wounds, bruises, fractures of the bones, and luxations, application of excessive cold, or of burning heat, &c. forming obstructions in the capillary vessels of the vascular system, and exhibiting what is designed (designated) local inflammation; from whence, by a sympathetic affinity, the heart and arteries are drawn into violent action, and it thereby becomes a primary cause of fever."

Our ingenious author seems here to lose sight of the distinction which certainly exists between idiopathic and symptomatic fever. Local inflammation, it is granted, very often gives rise to that kind of irritative action in the general system, which may, if you please, be named fever; but here the pyrexial state is by no means the same as that which has place in genuine fever, and which occasionally brings in local inflammation among its train of symptoms. How different, for instance, is pneumonia and its consequent pyrexia, from pyrexia and its consequent pneumonia! In the former case, however violent the vascular actions, there is none of that peculiar something which is so prominent and conspicuous a mark of true fever; and which something is evidently dependent upon a particular condition of the sensorial organs. So plainly is this the case, indeed, that one of our ablest authors in the present day, on the subject of fever, teaches that its essence is inflammation of the brain: but this theory is not correct, inasmuch as inflammation of the brain, of all kinds and degrees, both medullary and membranous, may, and does take place, without bringing with it that peculiar something of depression and general derangement by which true fever is invariably marked. A patient, for example, shall have violent phrenitis, with all its accompanying features of morbidly acute sensations; there shall be even considerable delirium; but still both the delirium and disease are different from that of absolute, idiopathic, genuine fever. The advocate for the theory to which we are now adverting, would tell us, that the difference, if any does actually exist, consists in fever being seated in the medullary, while phrenitis attacks the membranous portion of the encephalon: but this assumption, even allowing its correctness, fails to establish the truth of his positions. Other diseases there are that affect the actual substance of the brain with every grade of inflammatory irritation, such as hydrocephalus, in which, prior to the effusion whence its name is taken, inflammation almost invariably occurs; and yet the hydrocephalic and the febrile subject are in decidedly different states of morbid being.

The truth of the case appears to be this, that an universal derangement primarily occurs in fever, and that the topical

affections either of the stomach, or brain, or liver, or heart, or lungs, or kidneys, or pleura, or peritoneum, are the incidental consequences of the disordered circulation, resulting from the general affection, which derangements become causes of fever's complication and continuance, though they were not in and of themselves the actual source of the disease.

Before we conclude this division of our subject, we wish to express it as our opinion, that positive fever may, under some circumstances of the frame, arise out of stomach derangement; but still let the pathologist who wishes to gain an accurate knowledge of nature's laws be aware how he infers that the state of the stomach is the sole cause of disease, when it is merely one of the organs which become the subject of morbid affection in the course of disease.

" The next source of fever (says Dr. W.) which I come now to point out, is that which is distinguished from its remote or primary cause being derived from something of an extraneous, irritating nature, which has been received into and circulated with the blood; and being thus brought into contact with the internal surface of the heart and arteries, a direct stimulus is thereby applied to them, by which means they are excited to increased action.

" Of this nature are all infectious diseases; they are all attended with many aggravating symptoms, and present a state of fever which, in consideration of the primary and secondary causes, is justly to be considered under the idea of complex disease. This is most remarkably exhibited in all the exanthematæ, a form of fever which never occurs unaccompanied with gastric derangements of much importance.

" Fever, when it exists then as a complex disease, is that febrile state of the body which, although it acknowledges only one primary cause, becomes aggravated in its effects by the co-operation of other secondary causes of irritation acting at the same time on the nervous system. In fever from infection you will most commonly find these to consist of a chain of morbid sympathies, which are the consequence of one or more organs of the body having been brought into a sympathizing action with some other which is in a diseased state, and drawn by it into morbid action also; and this sympathizing organ perhaps affecting others in a similar manner, each of them exhibiting symptoms peculiar to its own department; and all of them depending on, or as it were arising from, the impulse communicated by the first exciting or real remote cause of the disease, tending to aggravate its effects."

This pathology of fever may be subscribed to, perhaps, without much limitation, provided that we all along keep in view, that the primary effect of morbid poison is to produce general disturbance; and that the local irritations, which eventually become links in the chain of dis-

eased associations, are the consequences, not the causes, of this universal perturbation.

Mental emotions, as a source of fever, are next taken into consideration by Dr. Wilson; on which subject, however, we find nothing of sufficient importance to justify discussion. We do not mean that the remarks in this part of the volume are without value or interest; but as the explanation of the ætiology of fever still throughout goes upon the same principle, it would be useless to detain our readers with repetitions of admissions and objections. We may just here incidentally remark, that as far as the origin of fever, in reference to exciting sources, is concerned, we still want some philosophical treatise as to the question of fever's production, *i. e.* of its identity and diversity, as apparently springing from various sources. The onus, however, of this inquisition by no means lay in the compass of Dr. Wilson's plan. Influenza he conceives to originate from a specific infection, not "characteristically contagious;" but at times "it may possibly have proved eventually so." With regard to the mode in which the exciting cause displays its effects, he "is led to think that the disease may be the result of some decomposition of the blood itself, whereby it is deprived of a portion of its oxygen:" a theory which he founds "upon the uniformly soft texture observable in the blood when extracted, with the permanent general debility which seems to be induced by it."—"This idea naturally leads to a reasonable object in prophylaxis; which is, to adopt a mode of living that is calculated to produce a supply of oxygen in the system, such as the practice of early exposure to the fresh morning air, and retiring early to bed at night, daily occasional draughts of acidulated liquors, such as lemonade and water, acidulated with nitric acid, &c." Here our author becomes lost in chemical reveries. Who does not know that the quantity of oxygen in the blood is by no means thus regulated by the reception of it into the stomach? Indeed the converse of the proposition has been maintained by some; and it has been proposed as an axiom, that the oxygenation of the blood is in proportion to the assimilation of hydrogenous and azotic materials received by the stomach. So that "the use of fresh animal food, with wine and water, and the inhalation of aromatic vinegar," which is a continuation of our author's rules for fortifying the system against infection, is chemically inconsistent with the advice to drink acidulated liquors. The fact is, however, that we are totally at sea with respect to these inferences of animal properties as drawn from chemical sources: and we moreover want facts to prove that any mode of living, or any state of the body, renders us more obnoxious to the influence

of contagion or infection than another. We find the weak and the strong, the aged and the young, the poor and the rich, all fall, both with influenza and other epidemic fevers, without any *à priori* reason of particular susceptibility.

In regard to the state of the air which actually produces influenza, Dr. W. thinks that the mineral gases thrown out from crevices in the earth in volcanic countries, and travelling over extensive districts, may so impregnate the atmosphere as that it shall thus become the exciting source of the disease.

"In prosecution of this idea (he says), I presume to think it probable that the violent and extensive influenza of 1782 and 1783, which, having began far north, gradually extended itself southward over Europe, was the effect of mineral exhalations from the volcanic mountains of Iceland and Norway, previous to their terrible eruptions in June, 1783; exhalations which impregnated the atmosphere of the north of Europe with a thick misty haze for some months, through which the sun appeared of a strong red colour.

"Again. The influenza became epidemic in Europe in the years 1802 and 1803; but in June 1802, an earthquake had nearly destroyed Crema, in Italy; and, in 1803, another earthquake occurred in Turkey, near Constantinople; and the disease accordingly approached us from that quarter. We heard of its having passed over Italy, part of Spain and France, before it reached England. All this is, indeed, much a matter of conjecture; but I think it a very probable one: whether it is the real state of the matter or not, the circumstances are, at least, singular, and deserving farther observation. In corroboration of this idea, however, it is worthy of remark, that of twenty-five instances of epidemic catarrh, enumerated in Dr. Cullen's Synopsis, on comparing their dates with the annals of remarkable events, I find that twenty-one of these are nearly connected in time with volcanic eruptions, earthquakes, or violent storms in the atmosphere, which have either nearly succeeded to, or shortly preceded, the disease."

The only remark which we shall permit ourselves to make on the above conjecture of Dr. W., is, that under such atmospherical changes as he supposes, it is hardly conceivable that the malign principle, or aerial poison, would elude all chemical investigation: such, however, is the case on the occurrence of epidemic diseases, whether catarrhal or not: the most minute endiometrical investigation fails to develope the particular something in the air to which we ascribe the phenomena.

Febrile affections being now dismissed, we come to the consideration of rheumatism; and here we have still the stomach as the occasion of every thing. Rheumatic pains, however, are often induced by the direct application of cold, its exciting cause; and the disease only becomes gastric by long

continuance: nay, rheumatism shall often, for a long time, be established and prove severe, while the stomach preserves its wonted integrity. Let us not, however, be suspected of wishing to carry our opposition too far to Dr. Wilson's gastric views; most certainly the *primæ viæ* are very frequently brought into sympathetic action with the membranous inflammation constituting rheumatism; and in this disease, as well as in fever, purging is confessedly one of our most efficient agents in keeping the enemy at bay. Many cases are introduced as illustrative of the effects of purgatives in rheumatic complaints. We suspect, however, that our author has chosen, from his common-place book, some which terminated the most quickly. The young practitioner must not be disappointed if, even armed with the most effective purgatives which the materia medica affords, he finds his rheumatic patients a little longer under his hands than those cited by Dr. W. in the work before us. That species of painful rheumatism, if so it may be called, tic douloureux, Dr. W. still puts down among his instances of morbid sympathy: and most unquestionably the state of the stomach may have occasionally a considerable influence in modifying the sensations characteristic of this dreadful malady: but could either purgatives or bleeding, (according to another theory) so readily as would seem to be assumed, put a stop to the course of this morbid irritation, we should not find so many subjects of it as we daily do, complaining, with anguished expression, of the impotence of professed remedies. Let the sympathetic or the vascular expounder of every thing connected with this malady, turn to the case so minutely and ably recorded by Mr. Kerrison, in the ninth volume of this Journal, and he will there find that the Cinchona bark (the virtues of which we are losing recollection of in the whirl of modern theories,) gave relief when other agents had proved of no avail. In another case of apparently the same disease, bleeding and purging and anodynes would have been attended with more advantage than all the bark which Peru could supply: so empirical are we often forced to be in our remedial experiments, and so far is medicine still from being susceptible of that simplification which propounders of new principles are apt to suppose. Taking, however, the *granum salis* as an antidote against too easy conversion, the reader will find in the sections on rheumatism, and sympathetic inflammations which pass under that name, with much matter in Dr. Wilson's book that is really and practically valuable. We are sorry that we cannot find room either for his cases or his remarks: it must suffice to say, that the rules laid down on the subject of inflammations in and about the chest, appeared to us, in the perusal, to be particu-

larly worthy of attention. We are convinced that by purgatives, emetics, and nauseating doses of emetic substances, the practitioner would often go more safely and more effectually to work in many pulmonic affections, than by dealing so very largely, as is sometimes done, with the lancet.

Gout, like rheumatism, is of course sympathetic; and it certainly deserves to be received in this light quite as much, at least, as rheumatism: indeed, one of the common distinctions of the former from the latter is, that it is almost invariably connected with more or less of stomach derangement. Purging is certainly a most important agent, both in the one and the other disease.

Erysipelas, our author considers, and we think justly, as having a certain alliance with gouty affection. This, he says, (erysipelas) is always preceded by stomach derangement. Substitute the word often for always, and the position thus amended we will readily ascribe to. The very last case which we happened to see of this malady fairly marked, submitted to an emetic almost as to a charm; but if in the next instance of as much cutaneous irritation, and seemingly of the same nature, we should prescribe an emetic with hopes of similar success, it is more than probable we should learn a lesson, in the failure of our anticipations, respecting the fallacy of general conclusions in medical practice.

On angina pectoris our author has the same merit and the same fault as in every other particular. Those irregular actions of the heart which give rise to the sensations, which in their aggregate and aggravation are considered as indications of the presence of the disorder just named, have most unquestionably often an origin in the deranged state of the *primæ viæ;* but they are likewise also, at times, dependent upon certain conditions of the organ itself; and they not seldom proceed from an obscure condition of the nervous and propelling power, without any reference, except in a secondary way, to the state and functions of the digestive organs. It is often a matter of extreme nicety to point out the first link in the chain of those disordered actions which together constitute a paroxysm of the disease. Indeed, we talk of this affection as we do of most others, too much in the abstract; that is, we conceive an ideal something which we call angina pectoris, and then institute discussions with respect to the seat and source of the complaint, as if its symptoms must necessarily and invariably proceed from one origin; whereas those indications of deranged action or structure, which, in a more or less marked manner, would be sufficient to ground an inference respecting the predication of angina pectoris, may be dependent upon a variety of circumstances: and hence we

prove ourselves in error by the very supposition that the dispute, with respect to the actual origin and essence of the malady, is capable of being set at rest even by examinations *post mortem.* All that the Practitioner can hope to effect (and this is often a business of much difficulty,) is to endeavour at ascertaining, first, the part of the heart which seems more especially to be affected in cardiac irregularities; and, secondly, whether such affection is of an organic and primary, or secondary and sympathetic, nature; ever holding in recollection, that stomach disturbances may be the consequence as well as the occasion of these irregularities in the movements of the heart.

Cynanche trachealis, or croup, is, as our readers will see by the list of contents, the last malady which Dr. Wilson instances as affording proof of the morbid sympathy contended for: and that fairly marked croup may be induced by a deranged condition of the digestive organs, we are ready, as in other cases, to concede to our ingenious Pathologist: but does not the trachial inflammation which forms croup most evidently and unquestionably, at times, follow as an immediate application of cold to the affected part; and that at a time when every thing is going on in the primæ viæ with the utmost regularity and order? Even in this last case, vomiting and purging constitute necessary and important ingredients in the curative process; but it is not that the medicinals excitative of these actions pump off offending matter; but it is by reducing inordinate, and originating other orderly movements, that they prove so conspicuously effectual in thus strangling the infant malady.

In conclusion, we must beg to deprecate the notion of having been instigated by any unfriendly feelings either towards the present author or the theory he has so ably advocated. All we desire to see is moderation; and it will eventually be found in this, as in most other cases, that the less implicit the belief in, the more firm and lasting is likely to be the conversion to, any system of doctrinal principia. If we adopt notions under the feeling of their infallibility and universal application, it is probable that in no long time we shall come to disregard their rectitude and value in the very same measure in which we now appreciate and applaud them: and thus we may run from the stomach to the liver, from the liver to the heart, from the heart to the head, and thence to the *spine,* in our ardent wishes to find out one main-spring and source of all morbid being.

II.

A Supplement to the Pharmacopœias; including not only the Drugs and Compounds which are used by Professional or private Practitioners of Medicine; but also those which are sold by Chemists, Druggists, and Herbalists, for other purposes; together with a Collection of the most usual Medical Formulæ; an Explanation of the Contractions used by Physicians and Druggists; the Medical Arrangement of the Articles of the London Pharmacopœia, with their Doses, at one view; a similar List of the Indigenous Plants of the British Islands, which are capable of being used in Medicine; and also a very copious Index, English and Latin, of the various Names by which the Articles have been known at different periods. By Samuel Frederick Gray, Lecturer on the Materia Medica, &c. Underwood.

To analyze such a production as the present were next to impossible. We think it, however, proper to introduce to our readers a work which has supplied a desideratum that had long existed. By the possession of Dr. Duncan's or Mr. Thomson's Dispensatories, Mr. Gray's Supplement to the Pharmacopœias, and Dr. Paris's forthcoming Pharmacologiæ, in an improved form, the student of materia medica and pharmacy will find every want supplied as it refers to this important department of medical science.

CORRESPONDENCE WITH THE REVIEWING DEPARTMENT.

[Extract of a Letter from Mr. Newnham, of Farnham.]

To the Editor of the London Medical Repository.

"Permit me for a moment to occupy your attention with one observation of the Reviewer, viz. that the *unsuccessful termination* of this second case under the care of Dr. Davis, would have *argued substantially against* the inferences I had drawn. In every chirurgical operation there is *some degree* of ultimate risk to the patient, and in the more important cases this danger is proportionably increased. Nobody questions the propriety of the operation for strangulated hernia, although its consequences are often *fatal.* Nobody would now hesitate to amputate a limb *during the progress* of gangrene from an *accidental cause,* although such amputation is not invariably successful. The same may be remarked of almost all the principal operations. Hence, therefore, although a *single case,* supported by abundant collateral testimony, may not be sufficient to establish a rule, yet it is far more than sufficient to be invalidated by a *single unsuccessful event.*

"The inferences I have drawn, however, have been strengthened by the result of the case of Mrs. Senior. It should seem that this case was rendered somewhat unfavourable by the violent pain of the right inferior extremity, arising, as I conceive, from the connexions of the uterine and sacral nerves, and marking *irritation* in this part of the nervous system. This would probably account for the violent symptoms, none of which were present in the case of Mrs. Glasscock. It would be premature, however, to make any remarks on the difficulties and dangers of the operation, as they occurred to Dr. Davis, before he has favoured the public with his detailed account. Such a history, from such a quarter, cannot fail to be highly interesting, and will tend to carry the operation to that perfection which I confidently anticipate.

"It must be evident too, that the extirpation of the uterus ought to *devolve exclusively* upon the *competent;* but when the circumstances of the unfortunate patients are considered, I think it will be conceded that every respectable practitioner *ought* to be *sufficiently well informed* to undertake such an operation and its after treatment; or he cannot be fitted for the practice of his profession, and adequate to the performance and subsequent treatment of other chirurgical operations which must necessarily fall in his way. I mention this with the desire of stimulating the *cautious* and the *learned;* not surely with the view of encouraging the *ignorant* and the *rash.*

"Pardon me, Mr. Editor, for having thus far deviated from the object of this communication; viz. to inform you, that a *third case* of extirpation of the uterus has occurred at Manchester, under the care of Mr. Windsor, and sanction of Dr. Hull. As I have every reason to believe that Mr. Windsor will publish the detail and successful result of this case in some way or other, I feel that it would be wrong to divulge any particulars respecting it farther than to say, that the woman, worn down by hæmorrhage and irritation, was submitted to the action of the ligature on the 22d of August; that the uterus was removed on the 13th day from such application; and that on the 26th of September, (the date of my last communication,) three weeks and two days from the separation of the ligature, the patient was doing well, and bidding fair "ultimately to regain a good state of health."

"I confess, sir, that I conceive the successful issue of the *first three cases* of excision of the womb is more than could reasonably have been expected, and will go far to settle this point of obstetric practice. It is more than attended the first three cases of ligature upon the carotid artery, and probably more than resulted from an equal number of almost any of the first capital operations.

"Mr. Windsor has had two drawings made of the uterus, as it was removed, and has kept a regular journal, &c., with which I hope he will soon favour the medical public.

"Mr. Windsor likewise informs me, that a case of chronic inversion of the uterus is under the care of a surgeon at *Altringham, near Manchester*, and I hope the cause of humanity will soon be prospered by the *addition of this also to the successful cases* of extirpation of the uterus. Mr. W. has also seen lately a case of inversion, which proved immediately fatal. One remark here necessarily forces itself upon my attention. We have been taught, and we have rejoiced to believe, that this is an extremely rare disease: yet, in a small section of the United Kingdoms, several cases are now known to have existed; and when the possibility of removing the inverted uterus shall be generally acknowledged, I will venture to predict, that very many cases will be discovered in the towns, and villages, and hamlets of our own country; and that these will continue to occur so long as female practitioners, and incompetent male practitioners, continue the disgrace of science, and the pests of society. How grievous is it that the lives of the better portion of mankind should be committed to the hands of such beings, whose ignorance is only equalled by their presumption!

"My arguments in favour of the extirpation of the uterus are still farther confirmed by a well-authenticated history, with which I have been favoured by a medical friend, of a case of inversio uteri, *in which the uterus sloughed entirely away, and the patient did well.* It is my intention, at some future time, to publish this history; (permission to this effect having been granted me;) but at present I have trespassed so unwarrantably on your time, that I shall conclude by inferring, that if Nature, unassisted, can accomplish such a separation, by *the process of sloughing*, during the *acute stage of the disease; à fortiori*, she will be able to *bear the proposed chirurgical treatment, when that disease has become chronic; when the irritation has been diminished; and when the constitution has been accustomed to that irritation.*"

We insert the above extract from Mr. Newnham's Letter, without making any farther comment than just remarking, that Mr. N. is not quite correct in assuming his, Dr. Davis's, and Mr. Windsor's to be the three *first* cases of excised uterus. Such an assumption, indeed, is inconsistent with the tenor of Mr. N.'s own book, in which cases of precedent and authority are given from other authors. In our Analysis of Mr. N.'s Treatise, we mentioned having seen an uterus which

was extirpated by Mr. Chevalier; and there is a case recorded by Dr. Merriman, in the 25th volume of the Medical and Physical Journal, page 209, of removal of an inverted womb, by Mr. Baxter, of Montgomery.—Rev.

PART III.

SELECTIONS.

On the Use of Colchicum in Gout. By Sir Everard Home.

In the communications which I made to the Royal Society, upon the use of the vinum colchici in gout, in the year 1817, I was desirous of putting an end to the quackery respecting that medicine, and to restore it to the place it held in the Pharmacopœia in the time of the Greek physicians; at the same time that I explained an improvement in its preparation, from which I have myself received so much benefit, that I was desirous of giving my fellow-sufferers an opportunity of partaking of it.

The Philosophical Transactions being a work set aside for investigations, and recording new facts, not for practical essays, I contented myself with stating what was new, leaving to the practitioners in medicine to put my observations to the test, and diffuse the benefits of this mode of employing the medicine.

I am now induced, by the numerous applications that are made to me for further information on the subject, to send the following observations to you, with a request that you will give them a place in the Journal of the Royal Institution, by which means they will be more generally diffused than through the medium of the Philosophical Transactions.

It is not now necessary to discuss the point, whether there is any difference between Husson's and Wilson's gout medicines and the vinum colchici, since they all three cure the gout nearly in the same dose, and the same period of time; proofs of their identity sufficient for any practical purpose.

The facts on which I wish to lay particular stress are the following:—

1st. That the vinum colchici, when received into the circulation in small doses, produces no deleterious effects, and only brings on the same symptoms as when taken into the stomach, which go off in similar periods of time.

2d. That the deposit which is separated from the infusion by keeping, when given by itself in the dose of a few grains, produces inflammation and ulceration on the coats of the stomach and intestines.

3d. That the infusion removes the paroxysm of gout equally readily, whether given without the deposit, as with it.

4th. The infusion, when clear of the deposit, can be taken in doses of 60 or 70 minims, without producing any disturbance in the stomach, increasing any of the secretions, or bringing on an irregularity of the pulse, effects which commonly occur when that dose is given with the deposit mixed with it.

5th. That 60 minims is the smallest dose that can be depended upon for the complete removal of a paroxysm of gout.

These are the facts which I communicated to the Royal Society, and which are confirmed by an experience of 17 months upon myself and many other individuals. In some constitutions a dose of 70 minims may be required, and that dose I know can be taken with safety, as I have taken it myself, and found no sensible effect from it, further than a slight nausea, and that the attack of gout was carried off.

The advantage of taking the colchicum in this form is, that being milder, the dose necessary for the cure can always be employed without injury to the stomach, even in states of the greatest debility. After an illness, by which I was reduced to so great a degree of weakness as to be unable to walk alone, the gout came violently in my left foot; 60 minims of the vinum colchici completely removed it in 24 hours, without any disturbance being produced in the stomach, or any other distress whatever. The consequences of a violent fit of the gout under such circumstances, had it been allowed to go on, are not to be calculated.

As 60 minims of Husson's and Wilson's medicine too often produce purging to a violent degree, in all such cases it must be given in reduced doses; and as a smaller does not produce a cure, unless repeated; the stomach, by such repetition, is not only more disturbed, but kept a longer time in that state, and the disease not so effectually removed; and it is known that in all constitutions liable to gout, whatever deranges the stomach, tends to bring on the paroxysm.

The vinum colchici, without the deposit, has another advantage; for as it does not irritate the stomach, it does not require being compounded with other medicines, to defend the stomach from its effects, so that the patient can measure out the dose for himself, which he will take more pains to do accurately than any other person; and here great accuracy is necessary.

The bulbs of the colchicum should be collected after the disappearance of the leaves, which happen in July, and before the appearance of the flower, early in September.

(*From the Quarterly Journal of Science and Arts.*)

On Sirium. By M. Faraday, Chemical Assistant in the Royal Institution.

The discovery of a new metal called sirium, was communicated some months ago in a letter from Vienna, and published in the Annales de Chimie, as follows :—

" The metal sirium is obtained from the ore of nickel of schladminget, in which it is accompanied by much arsenic and nickel, and a little cobalt and iron. After the ore is fused with glass, it is pulverized and dissolved in nitric acid, the excess of acid is saturated, and acetate of lead added; arseniate of lead precipitates, but arsenic still remains in solution. The excess of lead is separated by sulphate of soda, the liquor is filtered, and a little acid added, which is indispensably necessary to have the sirium pure. After having passed a current of sulphuretted hydrogen gas through the solution, it is to be neutralized by carbonate of potash, until a precipitate is formed, which is not resoluble; then sulphuretted hydrogen is again to be passed through the solution, and the sirium is precipitated, combined with sulphur. An essential character of this metal is, not to be precipitated from its solutions by sulphuretted hydrogen when there is excess of acid, and to be precipitated by it when there is no excess.

" The green liquor from which the sirium has been precipitated contains nickel, cobalt, and iron.

" The sulphuret of sirium being heated in a crucible lined with charcoal, a scorious black mass is obtained having a metallic fracture. It is to be powdered and heated for half an hour with one-fifth its weight of oxide of arsenic, at 60° W. Mr. West, the discoverer, obtained in one experiment a spongy regulus, and in another a compact metallic mass, which was the sirium, still containing sulphur, arsenic, nickel, and iron, because the filtre had not been well washed."

The Editor of the Annales de Chimie observes, that " such is the account communicated of this discovery, which has caused a strong sensation amongst the men of science in Austria. The writer of the letter has, perhaps, omitted the most important particulars; for no one would believe in the metal of Mr. West, but rather in his inexperience. As he appears ignorant that nickel is not precipitated from its solutions by sulphuretted hydrogen when they are acid, and that it is in

part when they are neutral, we should wish him to ascertain whether his sirium is not very impure nickel."

Sir Humphry Davy received some of this metal from Mr. West, of Gratz, and sent a few particles of it in a letter to Mr. Hatchett, expressing strong suspicions as to its being really a new metal. Mr. H. placed a globule weighing about four-tenths of a grain in my hands for examination. It was brittle; its fracture irregular, but crystalline, and of a reddish grey colour, approaching towards bismuth.

The globule was placed in a dilute nitric acid, and heated; it was acted on with moderate rapidity, liberating nitrous gas; a solution of a yellow tint (partly occasioned by nitrous gas) was obtained, and a black insoluble powder separated. When the globule was about half dissolved, the clear solution was decanted off and evaporated to dryness. It formed a yellowish green salt, which, on being redissolved, afforded a light green solution. This solution tested on a glass plate by nitrate of barytes, threw down sulphate of barytes. Ammonia being added in excess to the remainder, threw down oxide of iron, which being filtered off, left a clear blue solution. The iron was redissolved in muriatic acid, and thrown down by prussiate of potash; the ammoniacal solution was tested by prussiate of potash against a comparative prepared solution containing nickel, nitric acid, and ammonia, and precipitated white like it; and the remainder being evaporated to dryness, and heated to drive off the nitrate of ammonia, &c. and the oxide redissolved in muriatic acid, a green solution was obtained, which was thrown down white by prussiate of potash.

Sulphur, iron, and nickel, are therefore rendered evident by these experiments.

The remainder of the globule, with the black powder, were acted on by nitro-muriatic acid, and soon dissolved. A bright yellowish green solution was obtained, which gave a green salt on evaporation. This redissolved in water left a heavy white flocculent powder; and the solution, which was green, precipitated nitrate of barytes, became blue by ammonia, afforded iron, and a solution with acid which precipitated white with prussiate of potash, as before.

The insoluble substance I took to be oxide of bismuth, or a metallic arseniate. Heated with dilute nitric acid it dissolved, and was not precipitated by water. Into a part of the acid solution nitrate of silver was dropped, and then ammonia carefully added until the whole was neutral; a yellow precipitate fell, resembling exactly the arsenite of silver. To the remainder was added potash in excess, which was heated with it. Iron fell down and was separated; and then sulphate of copper

being carefully added to the solution, a greenish precipitate was produced.

On making comparative experiments, it required between two and three drops of a saturated solution of white arsenic in potash, specific gravity 1051, with about twenty of a weak alkaline solution, the bulk and other circumstances of the solution obtained from the globule being imitated, to produce the same tint of green on the addition of sulphate of copper. The two drops gave a precipitate more blue; the three drops, one more green.

In consequence of the minute quantity of the metal which I possessed, I could not make any other experiments. It is evident that it has no claim to the character of a peculiar metal, but is a very impure mixed regulus. It contains sulphur, iron, nickel, and arsenic; and these make up very nearly, if not quite, its whole mass. I should guess the iron to be nearly equal to one-third of the whole weight.

Dr. W. H. Wollaston has, through Mr. Hatchett, kindly permitted me to state, that having received from Mr. Hatchett the remainder of the very small quantity sent to him by Sir H. Davy, he subjected it to examination, and ascertained it to be a sulphuret, the principal metal being nickel, with small portions of iron, cobalt, and arsenic.

(*From the Quarterly Journal of Science and Arts.*)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PATHOLOGY AND PRACTICE OF MEDICINE.

A Case of Apoplexy, followed by Palsy and Mental Derangement, occasioned by a considerable Effusion of Blood between the Dura Mater and Arachnoid Coat. By Dr. Esquirol.

A woman, aged forty years, was admitted into the Salpétrière on the 9th of August, 1817. She was a dressmaker, and resided in the country. Her husband had died in a state of dementia senilis. When a girl she was very passionate.

She was tall in stature, with black hair, brown eyes, rather pale in complexion, and inclining to corpulency.

When seven years old she had the small-pox; at eleven a cutaneous eruption (gale); at thirteen the menses appeared in abundance, and have ever since continued without interruption; at eighteen she had an attack of fever following a kick

from a horse; was married at twenty-four; has had no children; since her marriage has been accustomed to much hard labour.

At the age of thirty-nine (April 1816), after having suffered much from domestic troubles, she commenced drinking wine and spirits; not being able to pay for her lodging, she was much abused and threatened by her landlord: her menstruation, at this time, became particularly abundant; indeed, she had menorrhagia upon her for three weeks, and upon its cessation she was attacked with a slight fit of apoplexy. Leeches were applied; an emetic was given; she was purged twice. Her speech, however, remained defective; her memory became sensibly weak, her ideas confused, and it was with difficulty she walked about.

Towards the end of May she was able to resume her usual occupations; but now her ideas became exalted; she was always talking of going out upon some important mission; she lost flesh rapidly; she was uncomfortable when her head was covered.

On the 2d of June she entirely abandoned her work, talked incessantly of her deceased husband, and now became exceedingly headstrong and incoherent.

On the 4th of June she was received into a hospital. Her gait was tottering, her memory very confused, she talked much, and often cried out. (Blister to the neck, a bark purgative mixture).

Her condition was somewhat improved; she walked with more firmness; but still there remained some difficulty in utterance. She quitted the hospital on the 19th of July.

When at home she reverted to her first condition, and the paralytic affection gained gradual ground until the following year.

On the 9th of August, 1817, an universal palsy attacked her; she could not walk in the least, and it was with the utmost difficulty that she articulated. She, however, continued to utter cries, and appeared to suffer, especially in the back.

Loss of memory, dementia, involuntary evacuations; an inordinate appetite.

In December the weakness became extreme; an eschar appeared on the sacrum.

In January, aphonia, adynamia. On the 24th of this month she became comatose, refused food, and died at three in the afternoon of the 27th.

Examination on the 29th:—

Exterior of the Body rather fleshy; a superficial eschar on the sacrum.

Head.—The bones of the cranium thick; the dura mater

of a brownish colour through all that portion of it which corresponds with the left hemisphere of the brain; and between it and the arachnoid membrane a considerable effusion was found of a brownish, sanious, flaky (floconneux) matter, exceedingly fœtid: this fluid compressed all the left portion of the brain in such a manner that we expected to find the convolutions of that hemisphere destroyed; but having removed a blackish thin membrane, the arachnoid was observed entire, and the convolutions of the brain, instead of exhibiting a convexity, presented a plane surface.

There was a reflection of this extraneous brownish membrane upon the cranial portion of the dura mater, so that a kind of cyst was formed for the contained fluid, extending from the left orbitar arch to the lateral sinus of the same side, and corresponding to the left half of the frontal, to all the left parietal bone, and stretching down to the occipital bone and to the covering of the cerebellum.

The right hemisphere of the brain was unchanged; there was a serous effusion between the arachnoid membrane and pia mater on this side.

The vertebral canal also contained a serous effusion; and, in some parts, the arachnoid covering of the spinal marrow was thickened, and adhered to the pia mater.

The spinal marrow itself was rather more than usually soft in its texture.

The uterus was found large and soft, and near its cervix there was an appearance of small vesicles, which contained a colourless and stringy (filant) fluid.

A Case of Perforation of the Aorta.

A woman, aged 73 years, who had been an invalid for several years, having been in various hospitals, was admitted into the infirmary in the month of April last. She was affected with a cough, difficulty of breathing, and sense of suffocation during the night. Her expectoration was occasionally bloody. Percussion of the chest occasioned much pain, and on the left side, towards the hind part, gave a low sound (*un son mat*); an obscure sense of palpitation was present; the pulse was not very regular. The countenance was livid and puffed; the left abdominal member (*membre abdominal,*) and the hand of the same side were œdematous. These several symptoms increased gradually in intensity; the oppression became daily more urgent; the effusion rose into the thigh, and soon after into the abdomen. At length, at the end of six weeks, the patient expired.

DISSECTION.

Thorax.—The lungs were sound, but there was an effusion at their posterior part: the pleura contained but a small quan-

tity of liquid. Upon raising the left lung, to examine its root, a projection was perceived about the size of the fist, about the twelfth, thirteenth, and fourteenth dorsal vertebræ. This tumour was hard, elastic, and smooth, in that part of its surface which was in contact with the pleura. Before proceeding to examine it, we opened the pericardium and heart: the former presented nothing remarkable; but the parieties of the heart were much enlarged, especially those of the left ventricle, the thickness of which was about eighteen lines. The aorta at its origin was covered with large patches of ossification, which occasioned on its surface a particularly irregular appearance. Ossifications were likewise observable at its curvature, and at this part there was a remarkable increase in the diameter of the vessel: this enlargement formed the commencement of the tumour which beat in the cavity of the thorax. Some albuminous layers of an organized structure, and yellow colour, were seen on the outside of this tumour, which, when raised, showed an interior surface less dense, and more like fibrine, very recently coagulated: the whole of this taken away, left an excavation about two inches deep, which the membrane in question had entirely filled up. In the bottom of this excavation was a *round opening* of about five or six lines in diameter, which was, as it were, hermetically sealed by the most dense portion of the fibrin*. Beyond this tumour the aorta directly resumed its ordinary calibre, but its sides were every where irregular, and covered with ossification. At the exit of the vessel from the chest, and immediately above the trunk of the cœliac artery, another tumour of a similar appearance, but less in magnitude, was observed: its exterior, however, was neither so dense, nor so yellow-coloured as the other; its cavity would contain a body about the size of a large nut; its bottom was not perforated, but a tendency to this event was perceptible, as its parieties were here very thin. Ossification continued the whole length of the aorta. The other parts of the body presented nothing remarkable.

The following Remarks have been sent to us by Dr. Gumprecht, under the denomination of "*Subaction of the Fundus Stomachi.*" They are extracted from an Essay of Dr. Jaeger's, Physician to the Court of Stutgard. From the detail that is given, the minuteness with which some of the physicians on the Continent conduct *post mortem* examination, will be rendered evident.

All those cases (says Dr. Jaeger,) observed by myself, and at least all those related by others, which with certainty may

* The vertebræ which corresponded with the tumour were corroded to a considerable depth.

be considered as belonging to the class of real subaction of the fundus stomachi, occurred in subjects that died of an immediately preceding sickness, without having suffered any external violence. This sickness, at least in most of the cases, had such conspicuous reference to the alteration found in the stomach after death, and has frequently, by its symptoms, and their manner of succession, such a decidedly fixed character, that in the last three patients of this kind that came under my care, I have with certainty been able to predict their result. Hitherto I have only observed this sickness in children, between four and eighteen months old, but in this age six times, both in males and females; and the seventh case which was communicated to me, also falls within this period. Some of these children were suddenly taken ill, without any previous symptoms; lost their appetite all at once; their hands became hot; with a greatly accelerated pulse; violent thirst; great uneasiness, and apparent pain, as might be concluded from their continued penetrating cries, and continually drawing up their legs towards the abdomen. The face grew pale and disfigured; the eyes sunk in their sockets; their cries passed into groaning; and they then lay quietly on their backs. A child of four months remained for nearly eight hours in this condition, when some slight convulsive motions of the eyes succeeded; the skin grew cold; it vomited, and died a few hours after. In another child, four months and a half old, of a stronger constitution, besides the above accidents, a very frequent watery diarrhœa took place directly along with the fever, accompanied with repeated vomiting up of whatever was taken into the stomach; it grew quiet in a short time; either whined, or lay on its back, to appearance excessively exhausted, with fixed eyes half shut, and a disfigured pale face. The diarrhœa lessened, and two days after ceased entirely, but the vomiting continued with the same violence; the milk it had taken was thrown up in firm coagulated lumps: volatile irritatives, such as cinnamon water, anodynes, and the like, remained longest in the stomach. The skin of the hands and face now became uncommonly cold; the pulse irregular, small, and scarce to be counted. By means of glysters a pale green phlegm was voided; the face gradually grew again warmer and redder, and the hitherto gentle breathing somewhat accelerated; the child whimpered at times; grew more quiet on being carried about; and then lay again with half shut eyes, seemingly almost deprived of sensation, but eagerly accepted and swallowed whatever was offered, which, however, for the most part, was vomited up again directly. On the fourth day the child died quietly, without any convulsive motions. In some

other cases, the disease, in its last stage of three or four days, was exactly similar to those already mentioned; but it was preceded for ten or fourteen days by a frequent discharge of partly green and slimy, and partly thin excrements, like wine lees, attended with hot hands, a decrease of appetite, occasional vomiting, and also sometimes a distention and irritability of the abdomen. I also frequently noticed a not very violent short and dry cough, that seemed rather to be excited by some irritation below the diaphragm, than by an affection of the organs of the breast. Lastly, this sickness took in some other children a still more chronic turn of four or six weeks. It likewise set out with a fever and diarrhœa, by which a quantity of slimy and pulpy excrements were voided, out of all proportion with the nutriment taken, and by which the patient grew visibly leaner. This was soon succeeded by blenorrhœa pulmon. attended with a spasmodic contraction of the diaphragm, and a retching, passing over into an actual vomiting, which soon after occurred without any attending cough; the other accidents continued; the face now became disfigured, accompanied with uneasiness and cries, followed by whining and groans, together with perfect debility, and slight convulsive motions; the skin then became, a day or two before the actual decease, uncommonly cold; the pulse not to be felt; and the patients died exhausted and emaciated. This latter form I only observed twice, in children between fifteen and eighteen months. Upon opening the bodies of all these children, no other deviation from the natural condition was invariably found, excepting the alteration of the stomach, which will now be described.

When the omentum is separated from the arcus magnus stomachi, and the intestines gently pushed downwards, the fundus stomachi appears, most strongly in the region where it touches the pancreas, but also a little on its fore and hinder surface, to be greenish grey, and sometimes reddish discoloured. The chyme is poured out between the stomach and the pancreas, and in this case an aperture will be found somewhere on the arcus magnus stomachi. In others the stomach is still whole, but the discoloured spot, in a manner transparent, and only kept closed by the involucrum peritonæi, and is easily torn asunder on being but gently pulled. This aperture, either already existing, or occasioned by the above manipulation, is always found on the upper part of the arcus magnus, near what are called the vasa brevia, and of a rather oblong form, following the bend of the arch. But neither its form nor size can be exactly defined, as the margins of it in a manner melt under the finger, and the aperture thereby becomes enlarged. On the stomach's being put into water,

these margins seem to be edged with unequal fringes, floating like fleecy particles in the fluid. On opening the stomach, if not yet torn, the inner teguments at the above mentioned place, down to the very thin and brittle involucrum peritonæi, are found resolved into a soft jelly of a whitish grey colour, that is easily wiped off with a sponge. From this either completely or nearly destroyed centre, this matter gradually becomes firmer, and at last the villosa only appears a little swollen, and at a still greater distance the substance of the teguments of the stomach assume again their usual firmness; however, in one case I found the tunica villosa as far as the pylorus, softer, and easier to be separated than in the healthy state. This change commonly extends to the whole saccus cœcus stomachi. For the most part, none of the usual traces of a more violent inflammation appeared either at the affected place, or in other parts of the stomach; however, in one case the whole circumference of the opening thus made was of a pretty dark red colour: in another case I only found the nervea, under the soft and swollen velosa, a little reddish; and in a third the involucrum peritonæi only remaining, was rather of a rose colour. I frequently saw some pale red stripes issuing from the affected spot, and running through the cardia into the œsophagus. The stomach, when not broken, was moderately distended with air, and always contained a considerable quantity of a slippery, glutinous, semitransparent phlegm, which covered its inner surface to a considerable thickness. I also found chyme, and at one time firm lumps of coagulated milk. In this last case turnesol paper, when brought into contact with the gastric juice and the teguments of the stomach, acquired a strong red tinge, which, however, is also the case with healthy stomachs of younger children. Never did I perceive any putrid smell, and only once a somewhat unpleasant odour in the destroyed stomach. By this circumstantial description, many cases mentioned in other works, of perforated stomachs, in which circular openings, with callous, black, and putrid smelling margins were found near the pylorus, or other parts of the stomach, are distinguished as not belonging to this class. In one child, where the sickness had not had the complete acute form, was also found, at the lowest part of the intestinum ilei, a similar spot broken, in its extent macerated, and somewhat inflamed; in another, where the complaint was more chronic, the œsophagus, in about the middle of the breast, had suffered the same destruction; its teguments were broken, and a similar kind of subaction and solution had penetrated into the substance of the adjoining lungs; that part of the œsophagus situated further down was sound, and under the cardia the

destruction began again. In one case, where the chyme was found poured out between the stomach and the spleen, that part of the diaphragm touching the fundus stomachi was of a greyish blue, its involucrum peritonæi partly corroded, and partly so dissolved, that it was very easily separated from the muscular fibres, which themselves were lead coloured, and brittle, and one spot of the paries anterior abdominis, corresponding with the front side of the fundus, was changed in the same manner. Seldom was any considerable alteration found in the other parts of the intestines; sometimes the lungs were somewhat overcharged with blood, and in one of the chronic cases, they contained a very great quantity of a tough phlegm. In a child of nine months, that from its birth had suffered under symptoms of a local affection of the brain, and then died in the second stage of the above-described disease, a considerable collection of water was found in the cavities of the brain. Thus the matter stands with regard to those cases in which an immediate reference between the preceding sickness and the condition of the parts appears possible, and also probable. But Dr. Jaeger also met with some cases in which, during the last mortal sickness, no particular affection of the stomach could absolutely be suspected, yet examination plainly showed the above described destruction of the stomach. One of these cases relates to a girl of nine years of age that died of a sickness very nearly related to an acute hydrocephalus, in the beginning of which the patient very frequently vomited. Another case of the subaction of the stomach occurred in a child that actually died of an acute hydrocephalus. Dr. Jaeger observes, on the other hand, that in a considerable number of children, who died of an acute hydrocephalus, he found the stomach sound and unimpaired. The two last cases of a subaction of the stomach, without any perceivable symptoms, occurred in two male subjects. One of them, a young healthy man, that died the fifth day of a very violent peripneumonia. The other was an elderly weak man, that, after frequent repeated vomitus cruentus, during a long series of years, was at last taken with a very violent hæmoptysis, accompanied with symptoms of an inflammation of the lungs, of which he died. These two patients were, some days previous to their death, without consciousness, and in a constant delirium. On dissecting the head of the younger subject, a quantity of water was found between the tunica arachnoidæ, and the greatly inflamed pia mater. These two cases seem to refer to those in which the subaction of the stomach has been observed as attended with an acute hydrops cerebri.

Account of the Manner of Treating the Patients in the Plague Hospitals at Constantinople.

[Communicated by Dr. J. Gumprecht, Conseiller de Cour de Saxe-Coburg, and Knight.]

All the patients labouring under this disease are, without any distinction, subjected to the same treatment. The strictest diet is prescribed, and they must be satisfied with only a light lemonade, with very little or no sugar; copious draughts of which are allowed. If the patients in slight cases have much appetite, they have half an ounce, and sometimes a whole ounce, of biscuit allowed them two or three times a-day, which is soaked in the lemonade. This diet is continued till the fifth, and in difficult cases till the seventh day, as the period of the first and most dangerous stage of the disease. Should the patient prove costive, a suppository is applied on the seventh day, which commonly produces a stool, and greatly mitigates the symptoms: his diet, from this day to the 14th, consists of a decoction of rice or barley, together with a few anchovy-biscuits, and lemonade. At the expiration of this period, the patient is said to be out of danger, provided improper diet, or other occasional causes, do not again make the sickness worse. From the fourteenth to the twenty-first, and sometimes even to the twenty-eighth day, the patient, besides the above-mentioned diet, has rice or barley-broth, in which, in slight cases, a little butter is boiled. After this period, the patient gradually takes chicken-broth with rice or barley, and at times some part of the chicken itself, which is continued till the fortieth day, when the patient is discharged. The surgical treatment is much more active. On the small raised anthrax, not surrounded with any bluish margin, the shell of an hazel-nut cut across and filled with honey, is applied by means of a firm bandage, till the ulcer becomes clean; which is then dressed with digestive ointment, or the leaves of beta, and covered with cataplasms of linseed-oil. Large, well-raised, and red anthraxes, are also treated with cataplasms, digestive salve, and beta leaves. If the anthraxes are flat, extended, and of a bluish-brown colour, cataplasms of red wine, or decoction of bark in red wine, are applied lukewarm, till they either discuss, or pass over into suppuration, which however is seldom the case: this kind of anthrax proving, for the most part, mortal. If suppuration notwithstanding succeeds, the malignant ulcer is cleansed with decoction of bark in red wine, and powder of bark, till it becomes benignant; when the same treatment as above is adopted. The buboes are treated with emollient cataplasms till they become ripe; then opened with a lancet, dry lint

introduced in the opening, and also covered with beta-leaves. If the bubo is malignant, it is injected with red wine, with or without bark, or dressed with turpentine, till it becomes benignant.

Simple Remedy for preventing the Distortion of the Spine in Children. By Dr. Weitch, in Berlin. From Hufeland's Journal for July 1818.

[Communicated by Dr. J. Gumprecht.]

Dr. Weitch having some time since been frequently consulted in cases of children labouring under distortion of the spine, found the simple washing of the same with spirituous liquors, together with a strict attention to keeping their bodies straight, of such decided benefit, that in children under eight years of age it produced a perfect cure, and in the worst cases, at least a sensible amendment. This evil for the most part not being discovered before other deformities, such as a high shoulder or hip, strikes the eye, he thinks it his duty and consonant with his profession, to direct the attention of all parents that have the welfare of their children at heart to this point; earnestly advising them to examine, from time to time, the spine of their little ones; and on the smallest deviation being perceptible, without delay to cause the faulty place to be washed every morning and night with common brandy. Even if the sound spine is washed once a week with it, it will be less subject to this complaint.

Note of Dr. Hufeland *to this Article.*

I join my opinion to that of the worthy author, having made the same observation; and think, this truth cannot be sufficiently recommended to parents and persons having the care of children, that the principal method for preventing that great misfortune consists, first, in frequent and close examination of the child's spine; and, secondly, on the slightest trace of any distortion, to wash the same with brandy every morning and night, and to pay the strictest attention to the child's keeping a straight posture both sleeping and waking; and if it can be bathed from time to time, it will be so much the better. I cannot sufficiently praise this simple treatment, which, when applied in the beginning, has frequently produced the most perfect cure.

Snail Shells in Epilepsy, &c.

[Communicated by Dr. Gumprecht.]

Vienna.—The experiments lately made by Dr. Goelis, in his Institute for Sick Children, with the powder of snail shells, certainly deserve mention. He administered it to

children Chorea in St. Viti and epilepsy, provided there was no organic affection; and to those labouring under intermittent fevers, with great success. The use of this remedy was suggested to his mind from his being told that epilepsy was cured in the East Indies with snail shells; and its efficacy in intermittent fevers he may perhaps have conceived from the great quantity of colla and phosphor the shells contain. The manner of his preparing this powder seems to justify our supposition, as Dr. Goelis, for the sake of preserving this colla, only dries the shells long enough to enable him to reduce them to a fine powder, without any calcination by fire. Of this powder, without any other addition, he prescribes for children under two years up to ten grains, three times a day; to those from two to six years the same doses, six times a day; by which treatment Dr. Goelis, in the course of six months, has already cured three patients of chorea St. Viti, one of epilepsy, and ten of intermittent fevers. The period of the effect was also answerable to his wishes; the fevers were subdued with two or three drams, but the chorea St. Viti and epilepsy required one or two ounces. The tumors of the occiput in new born infants, which do not always yield to the usual discussing remedies, and frequently prove more mortal, Dr. Goelis cures by applying a caustic to the highest part of the tumor, and then keeping the sore open. Without having recourse to any other inner or outer remedies, the cure is performed in eight or twelve days; and by this method he cured twenty-two patients in the course of four years, without losing a single patient. Dr. Joseph Frank, Professor and Counsellor at Wilna, on being at Vienna visited Dr. Goelis's Institute, and was present at the order for the numerous patients, and at their vaccination. The number of sick children will amount this year to nearly five thousand, and the vaccinated ones to two thousand; a proof that Dr. G.'s proceeding with respect to vaccination has gained much additional confidence.

Cure of an Hydrocele, in a Man of Forty Years, without any Operation. By Dr. B. Ottendorf, at Heidelberg.

[Communicated by Dr. Grumprecht.]

A cure of an hydrocele, by a complicated treatment, is certainly interesting enough to be made generally known. The one now to be noticed was in consequence of the patient's obstinate refusal to submit to any, even a palliative, operation. It is well known that but few practitioners believe in the possibility of curing, without any operation, even a simple hydrocele, at an advanced age. The patient was a single man, above forty years of age; the hydrocele already

far advanced, however, without suspicion of being complicated with an aneurism, or a corrupted scirrhous testicle. The chief medicines inwardly applied by Dr. Ottendorf, were, infus. dococt. arinae. herb. digital. purp. rad. val., with spir. nitr. aeth. and aqua junip., then powder of calomel. digit. purp. opium and camphora; afterwards decoct. arinae. with gentiana rubra and aether, occasionally tinct. martis ludov., and spir. nitri. aeth., with latterly an addition of tinct. digit. aeth. The chief outwardly applied remedies were a suspensory emplastr. cicut. c. empl. mercur., with camph. afterwards infrictions of ungu. mercur. and ungu. digit. purp., then empl. resolv. schmuck. ungu. merc. camph. and oleum hyoscyami.

The whole cure lasted only from the 26th of July to the 1st of September, the same year; and about seventeen months after the restored individual was still in perfect health.

MEDICAL JURISPRUDENCE.

EXAMPLES of poisoning by the *black hellebore* (*helleborus niger,*) the medical practitioner has rarely an opportunity of observing. No instance of it in the human subject seems to have fallen under the notice of Orfila*. In order, therefore, to diffuse a correct knowledge of its action upon the animal economy, and of the lesions induced by it, we subjoin an interesting case of *poisoning by a decoction of black hellebore*†, recently communicated by M. Ferrary to the *Societé Médicale d'Emulation.* This direct sacrifice of two victims at the altar of blind empiricism conveys a lesson which cannot be too loudly sounded in the public ear.

A domestic, who had been indisposed, drank a glass of decoction of some vegetable substances, which he had received from a celebrated empiric in cider. Among these was the root of black hellebore. His master, from curiosity, swallowed a like dose. In three quarters of an hour alarming symptoms were developed, without, however, exciting any suspicion of their real nature. Another glassful, taken by the servant, served only to aggravate the dreadful pains which the first had induced. Vomiting, delirium, and horrible contorsions, accompanied by immediate coldness, preceded the

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* *Traité des Poisons, tom.* ii. *page* 7. Nor does Gmelin in his admirable *Geschichte der Planzengifte,* (History of Vegetable Poisons,) record any case of this kind. This elaborate work, little, if at all known in Britain, and so unaccountably passed over in silence by Orfila, we shall frequently refer to, on subjects which involve the history of the various poisons.

† *Bulletin de la Societé Medicale d'Emulation.* April 1818.

final struggle. The violence of the symptoms precisely corresponded with the different quantities of the poison which its victims had respectively swallowed. The master died in two hours and a half after its ingestion; the servant in one hour and three quarters. On dissection, sixteen hours afterwards, both subjects presented appearances precisely similar, except that in the domestic they were much more strongly marked. The lungs were gorged with blood. The mucous membrane of the stomach was considerably inflamed, of a blackish brown colour, and reduced to an almost gangrenous state. The œsophagus and intestines showed nothing unnatural*.

The fluid found in the stomachs of the two subjects amounted to eight ounces. It was thick, greyish, and of an acid and amylaceous smell, probably in consequence of the oat-meal gruel which had formed their supper. Two ounces administered to a cat, produced violent efforts, succeeded in half an hour by vomiting, weakness, and complete insensibility, terminated by death in twenty-four hours. The remaining portion, having been mixed with distilled water and filtered, exhibited with lime-water, sulphuric acid, pure potash, ammonia, nitrate of silver, and syrup of violets, merely the phenomena attributable to the saline substances taken with the food, and to the phosphate of lime contained in the cider. But the hydrosulphuret of potash produced, after the lapse of an hour, a copious yellowish precipitate. Hence, as sulphuretted hydrogen constitutes one of the most delicate tests of the presence of arsenic, Cloquet and Caventon, the reporters on this case, lament that M. Ferrary did not, by an examination of the precipitate in question, determine whether the decoction had contained any admixture of mineral poison; a conclusion rendered, in their opinion, somewhat probable by the small quantity and inactive form (for it was simply bruised,) in which the hellebore had apparently been administered; the rapid operation of the poison; and the decided

* Morgagni mentions the case of a melancholic, aged about 50, who died somewhat suddenly, in about fourteen hours after having taken half a drachm of black hellebore in an aqueous vehicle. Diarrhœa, pain of the bowels, and vomiting of a small quantity of dark green fluid, were the principal symptoms. Upon dissection, thirty-eight hours after death, inflammation was found here and there in the intestinal canal, and more particularly in the termination of the œsophagus, the stomach, small intestines, and rectum. The ilium exhibited an appearance of alternate contraction and dilatation. The spleen was of a very loose structure, and red on the surface in contact with the stomach. A little bloody serum flowed from the brain, which was unusually soft. The limbs were yet flexible. — *Epist.* lix. *Art.* 15.

traces of inflammation and gangrene which the stomach of the patients exhibited.

Upon the filter through which the remnant of the decoction was next passed, two other vegetable substances (*glecoma hederacea* and *convallaria polygonatum*) were discovered. It evidently exerted considerable activity on the animal economy; and exhibited with the several re-agents first mentioned above, no unusual phenomena; but the hydro-sulphuret of potash, afforded a precipitate differing from that which the fluid of the stomachs had yielded to the same test, in being instantly formed, and having a white instead of a yellow colour. Unfortunately a minute examination of this precipitate also was neglected.

A stout middle-sized dog, to which, in elucidation of this subject, a decoction of one ounce of powdered root of black hellebore in cider had been given by the reporters, was almost instantly seized with immability and torpor, succeeded, in about a minute, by an undue rapidity of circulation. The power of motion was restored to the extremities, but not to the trunk. Incessant change of posture announced excessive agony. One evacuation from the stomach, after many violent efforts, was succeeded by utter loss of motion. Circulation flagged; and the animal died at the expiration of twenty minutes. Severe inflammation of the alimentary canal, commencing in the œsophagus, and gradually diminishing as it approached the rectum, but without any trace of erosion; thickening and redness of the internal membrane of the bladder; collection of a small quantity of blood in the right ventricle of the heart, and slight congestion of the left lung, were the principal phenomena observed on dissection. Singularly enough, the pyloric extremity of the stomach was much less inflamed than the other portion of the organ and the adjacent small intestine. These results very nearly correspond with those which Orfila has obtained from similar experiments*.

SURGERY.

In his memoir on the effects of the operation for empyema†, the French surgeon, Larrey, remarks, that it may be followed by a speedy cure, when the fluid effused into the thoracic cavity has not remained long enough to irritate the lung and cause its retraction. Several facts of this kind are recorded in the same work.

If, in fact, shortly after the effusion has taken place, the fluid be evacuated either by the original wound, or by another

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* *Traité des Poisons.* Tome ii. p. 8—11.

† *Mémoires de Chirurgie Militaires.* Tome iii. p. 442.

opening more conveniently situated, the lung immediately dilates, fills up the space before occupied by the effused fluid, and resumes its functions, especially when it has not been exposed to the external air. A slight oozing of reddish serum at first takes place from the inferior angle of the wound, which commonly cicatrizes from the twentieth to the thirtieth day. The two ribs which bound the incised space are drawn together, and all the others of the corresponding region follow the same concentric movement; so that there is a relative reduction in the whole of the wounded cavity.

These phenomena are presented in a progressive and very conspicuous manner, by the following "*case of penetrating wound of the thorax* *;" which, moreover, furnishes occasion for some remarks on the physiological properties of the lungs. An athletic Swiss soldier, aged 37, received on the left side, between the sixth and seventh ribs, a sword-wound, which penetrated deeply into the cavity of the chest. Considerable hæmorrhage followed, and the man fell. A handkerchief bound tightly on the wound stopped the bleeding; and on the 26th of October, about seven hours after the accident, the patient was first seen by Larrey. His countenance was then pale; his lips discoloured; his eyes dull and watery; his extremities cold; pulse extremely small and wiry; the voice almost extinct; respiration laborious, frequent, and oppressed; and hard cough, with much anxiety. On removal of the covering, the wound, about four lines in length, was found completely closed; and the margins were with much difficulty separated by a blunt probe, which, however, did not enter into the thoracic cavity. Yet the presence of effused blood was unequivocally announced, by the appearance of an emphysematous swelling around the wound; slight enchymosis on the posterior region of the hypochondrium; and by the immobility of the sternal ribs of the injured side.

Hence, in order to expose the intercostal space, it was determined to dilate the wound in the direction of the superior border of the inferior corresponding rib. The small wound was then easily discovered, parallel to the direction of the fibres of the intercostal muscle. The incision of both layers of these muscles to the extent of about four lines, by a curved bistoury introduced through the wound, was instantly followed by the escape of a quantity of black liquid blood. Two cupping-glasses, applied in succession over the wound, were immediately filled with this fluid and with gas; and such was the relief experienced by the patient, that he requested the re-application of them. On the third trial, however, a

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* *Bulletin de la Faculté de Médecine de Paris*, &c. 1818. No. 1.

portion of the inferior lobe of the lung escaped through the intercostal orifice. The small reddish division made in it by the sword-point was distinctly visible: the other parts were uninjured, and of a rose colour. Some difficulty was encountered in reducing this protruded portion; yet it was gradually accomplished, and *without the slightest expression of pain from the patient*. Hence, Larrey thinks it incontestably proved that the surface of the lungs, in a sound state, is utterly destitute of sensibility.

This hernia of the pulmonary organ at least served to show that no more effused blood was left in the chest, and that probably there would be no recurrence of it, as the extremities of the divided pulmonary vessels were obliterated: yet, in order to facilitate the escape of any fluid, the anterior inferior angle of the wound was kept open by a small roll of linen covered with cerate, and the other part united by sticking-plaster and a bandage. The emphysema had now wholly disappeared; respiration was more free, the pulse developed, and all the functions restored. Mucilaginous drinks, with nitre and light antispasmodics, were prescribed; and venesection was twice had recourse to before morning. On the morning of the 27th the patient experienced a tensive pain about the wound: the dressing, therefore, was removed, without however disturbing the process of union; and a quantity of blood was taken by cupping from the left hypochondrium and lumbar region. A diet of chicken-broth was prescribed. The abdomen was frequently rubbed with volatile embrocations, and emollient injections were administered. All the symptoms of irritation were speedily subdued by the cupping, and the patient became perfectly tranquil.

On the third day, the whole of the dressings, now moistened with bloody serum, were removed with the necessary precaution to prevent the admission of the external air into the wound. The extraction of the plug from its anterior angle, was followed by the escape of a large quantity of serum of like colour and consistence. The wound was already closed in its posterior half. Simple dressings were now applied, and the same general plan continued.

The serous oozing gradually augmented till the ninth day; then progressively diminished; and was, in a few days, replaced by a copious secretion of healthy pus. The wound remained fistulous about a fortnight. On the twenty-first day, cicatrization commenced at the bottom, and was completed by the end of November. In December, the man was discharged in perfect health.

The two ribs of the intercostal space, where the operation was performed, are drawn together; and the whole corre-

sponding side of the thorax has undergone a slight, though very sensible, reduction. Larrey attributes the prompt success of the operation to the following circumstances :—

The promptitude with which the effused fluid was evacuated, and consequent prevention of pulmonary inflammation which the protracted contact of carbonized blood and the external air with the lung would have induced. The organ no longer experiencing resistance, was thus enabled to expand and occupy the vacuum formed by the escape of the blood :

The removal of the interior local irritation, and prevention of inflammatory congestion of the costal and pulmonary serous membranes by cupping. This operation has a wonderful effect in relieving idiopathic inflammation. An afflux of fluids, first produced into the cutaneous capillaries, is afterwards transferred by scarification into the cupping-glass ; and thus the morbid parts are gradually disgorged, and the internal irritation diverted by that externally excited.

Larrey concludes his narrative by an illustration of the mode in which the cupping-glass operates in the removal of inflammation. The experiments of Haller and Spallanzani on the mesentery of frogs, whereby the independence of the capillary on the general circulation is clearly established, must be well known to our readers. " Daily," says the French surgeon, " I obtain similar results from the application of dry cupping-glasses on the skin ; and by the same physiological mechanism may be explained the remarkable effects which they produce, especially when assisted by scarifications, on inflammations of subjacent parts."

CHEMISTRY.

Discovery of a new Metal, by M. Stromeyer, *called Cadmium.* From the Journal de Pharmacie.

It has lately been suggested, that the oxides of zinc which are used medicinally, contain arsenic, and as such, their internal administration may be attended with dangerous effects. In consequence of this suspicion having got abroad, M. Stromeyer was appointed to examine the substance in question.

In none of his analytical experiments was he able to detect the supposed arsenical impregnation; but in reducing several of the different kinds of oxides, he found that they contained, besides zinc, a white metal, more fusible, ductile, and malleable, than zinc, the colour of which approached rather to tin or silver. The several oxides of this metal were found also to form particular salts with acids, different from those constituted of zinc with acids. These salts are without colour. Sulphuretted hydrogen precipitates it from

them with a yellow colour; but this precipitate otherwise differs from orpiment. We receive these details from the younger Ehrmann, whose father had a share in the above discovery.

It may fairly be expected that this discovery will be of some importance; and since the new metal (named by Stromeyer *cadmium*) appears to exist abundantly in the mines of zinc, and may be put, like tin, to a considerable number of uses, there is little doubt that it enters also into the various alloys of copper.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

PROCEEDINGS OF LEARNED SOCIETIES.

SOCIETY OF SCIENCES OF HAARLEM. — The following questions in the Physical Sciences have been proposed by this Society for competition previous to the 1st of January 1820:—

3. How far it is actually demonstrated that the fumigations by oxygenated muriatic gas, after the manner of Guyton, have served to prevent the spread of contagious maladies? What are the contagious maladies in which the effect of this gas deserves to be tried, and what ought to be principally observed in such experiments? Is there any reason to expect a more salutary effect, in the prevention of contagion, from any other mean hitherto employed or proposed?

4. What are we to regard as distinctly proved in respect of the gastric juice of the human body, and its influence in the digestion of food? Is its existence sufficiently proved by the experiments of Spallanzani and Senebier; or has it been rendered doubtful by the experiments of Montègre? What is it that comparative anatomy, and principally the opening of the stomach of animals killed, either after fasting, or in a short time after having taken food, have rendered probable in this respect? And in the case of the existence of the gastric juice in the human body being regarded as a fact perfectly established, what ought we to avoid, in order not to impair its effect in the process of digestion?

5. As the new mode of distillation which, some years since, was originally practised at Montpellier, and has been since adopted and improved in the south of France, according to which, the substances from which spirituous liquors are extracted, are not immediately exposed to the action of fire, but heated by steam — a process which is not only more economical than the ordinary method, but which has this additional advantage, that the spirituous liquors produced by it are of a purer and a more agreeable taste—the Society desire to know, "What is the best apparatus for extracting, according to this method,

with the greatest profit, the purest spirituous liquors from grain, as wine is drawn from the vines of France?"

The prize offered to those who, in the judgement of the Society shall give the best answer to any of these questions, is a gold medal, or one hundred and fifty florins, at the option of the author.

An anonymous iudividual has offered to the French Royal Academy of Sciences a sum of 7000 francs for the foundation of a prize of experimental philosophy.

Preparation of Hydrosulphurate of Iron. By Professor Turte, of Berlin*.—"Wishing in one of my lessons to demonstrate the decomposition of water by sulphur and iron, I had in due proportions, (25 and 15,) mixed the filings of very fine wrought iron with pulverized sulphur, and by the help of water made a paste of this mixture. At the end of twenty minutes it became so sensibly hot, that the vessel containing it could not be held in the hand; and twenty minutes later it had formed itself into black sulphuret of iron. I then set a portion of it apart, and having poured muriatic acid upon it, abundance of very pure sulphuretted hydrogen gas was liberated. I put the remainder into a bottle, where it remained for many months, at the end of which it had not suffered any change, but yielded, on the application of acids, the same quantity of sulphuretted hydrogen gas."

Remarks on the above, communicated by Professor Van Mons.

M. Turte has had the candour to acknowledge, that hydrosulphuret of iron, or sulphuret of iron by liquid process, was obtained before him, by Black.

The perfect resemblance of this sulphuret to the suboxide of iron obtained by a similar process, having led me to suspect that it might consist in this suboxide mixed with sulphur, and that the hydrogen might, through the medium of the sulphur, proceed from the second oxidation of the iron, I mixed well, by the addition of a little water, five parts of sulphur with eleven equal parts of black suboxide of iron; and on the half of this mixture I poured some weakened muriatic acid. Not a single bubble of sulphuretted hydrogen gas was disengaged, and the mixture was not in the least degree heated. I added to the remaining half, eight parts of fine iron filings, and enough of water to reduce it into paste. The mass heated; and after I had cooled it again, by plunging it into cold water, it yielded copiously sulphuretted hydrogen, but only after the oxide was dissolved. The constituents of this compound are 25 of iron, 15 of suphur, and 8·5 of water, or 32·5 of suboxide of iron, and 16 of sulphuretted hydrogen.

When solutions of submuriate of iron and of oxalate of ammonia are united, and the mixture exposed to the direct action of the sun, it forms at first muriate and carbonated muriate of ammonia, and emits carbonic gas. The mixture contains precisely the elements and the proportions of elements for these

* Kastner's *Pharmacie*, p. 201.

products. One half of the chlorate of corrosive sublimate passes to the carbonate oxide of the oxalic acid; whence there result mercury and phosgenic acid, which, with the ammonia, forms the carbonated muriate of that alkali; and the second element of the oxalic acid, which is carbonic acid, is liberated. It is of consequence here, as well as in the direct formation, that the phosgenic acid be assisted by the direct heat of the sun.

I have almost forgot to observe, that, according to Thenard, the azote which is separated from the atmosphere by the aid of sulphuret of iron liquified, is different from that which is extracted from sulphur.

SERPENTS.

The following memoir on the subject of the fascinating power of serpents, by Major Alexander Garden, of South Carolina, was read at a meeting of the New York Historical Society in September last.

" He attributed the phænomenon to an effluvium which the serpent voluntarily exhales at those times when it feels the desire of food, and the effluvium is of so deleterious a nature as to cause convulsions in the smaller and more sensitive animals, such as birds, mice, &c. He mentioned several instances in which men had been powerfully affected by this effluvium. He had been informed by the late Col. Thompson, of Belville, that whilst riding over his estate, he came to a snake of an enormous size, at which, the moment he could sufficiently collect himself, he fired. He killed the reptile, but was at the same instant assailed by an overpowering vapour, which so bewildered him that he could scarcely guide his horse home—that a deadly sickness at the stomach ensued, and a puking more violent than he had ever experienced from an emetic. He had been told by a lady, that the overseer of one of her plantations being missed, was sought for by his family, and found in a state of insensibility. On recovering, he stated that he was watching for a deer, when he heard the rattle of a snake, and that before he could remove from the threatened danger, he perceived a sickening effluvium, which deprived him instantly of sense. From John Lloyd, Esq. he had learned another case: — A negro working in his field was seen suddenly to fall, uttering a shriek: on approaching him, it was found that he had struck off the head of a very large rattle-snake, the body of which was still writhing. On recovering, he said that he had shrieked with horror on discovering the snake, and at the same instant had been overpowered by a smell that took away all his senses. Mr. Nathaniel Barnwell had a negro who could, from the acuteness of his smell, at all times discover the rattle-snake within a distance of 200 feet, when in the exercise of his fascinating power, and when traced by this sense, some object of prey was always found suffering from this influence. To these facts Major Garden added some anecdotes collected from Vaillant's Travels and other sources, corroborating his theory. When gorged with food the serpent is supine. It is only when under the stimulus of hunger that he exerts this fascinating faculty.

[We received some time since the following Letter, which we promised insertion last month. As it relates to a discussion of some time past, it has been thought right to insert it in this part of the Journal, rather than among the articles of Original Correspondence.]

To the Editor of the London Medical Repository.

SIR,—The case of hydrocephalus, detailed by me in vol. i. p. 373, MEDICAL REPOSITORY, and of which Mr. Bellingham expressed doubts, ibid. vol. ii. p. 280, terminated fatally July 13, ult. after five weeks' illness of as regular stages and pathognomonic symptoms as are described characteristical of hydrocephalus. She has never been free of cerebral complaints since that illness. Permission could not be obtained for an inspection *post mortem*. I have not trespassed on your valuable pages by detailing the case, as I consider that credit is allowed me, ibid. vol. ii. p. 469; and I also consider that you will not refuse me this opportunity of justifying myself.

Your obliged

Bovey Tracey, Devon, August 3, 1818. J. G. CROKER.

[We have been requested to insert the following paper in the REPOSITORY. In complying with this request, we may be considered by some of our readers as trespassing beyond our prescribed bounds, since physiological and chemical, rather than purely physical matter appears more strictly within our province. Certain it is, however, that as science becomes more extended and comprehensive, the fences by which one series of investigation is separated from another, daily moulder away, and a sort of geographical alliance between the different districts of philosophy thus comes to be established. Let it be understood, that in presenting the following outline to our readers, we do not intend, in the smallest measure, to commit ourselves either as to the admission or rejection of its principles.]

THE NEW SYSTEM OF PHYSICAL PHILOSOPHY.

Our readers are aware that, in the system of philosophy called Newtonian, Sir Isaac Newton considered attraction or gravitation as the primary cause of material phenomena. He conceived that bodies fall to the earth because they are attracted by the earth, and that all matter attracts all matter in a proportion of the bulks and distance; and, to account for the motions of the planets, he taught that, at their creation, they were projected in the vacuum of space in straight lines, but were drawn into their curvilinear orbits by the attractive force of the sun; and that these two forces, the projectile and the attractive, are always in activity.

On the other hand, Sir Richard Phillips has published a new System, in which he denies that there exists any inherent property of attraction in matter, and ridicules the notion of the projectile force and the vacuum of space. The phenomenon of bodies rushing together, he asserts is always an accident, not an innate property; consequently, if there is no universal gravitation, there is no ground for

insisting on the existence of projectile force to counteract it, and of a vacuum for the perpetuation of that force. The universal agent operating on matter, he says, is motion; and motion, as transferred from body to body, and compounded in various directions, is alleged, in this system, to be the efficient and sufficient cause of all sensible phenomena. The fall of bodies to the earth is traced by Sir Richard to the orbicular and rotatory motions of the earth, of which motions all terrestrial bodies are the patients. The rotatory motion equalizes the orbicular momentum of bodies of various density: hence the known series of density decreasing (according to this system, in geometrical ratio,) from the upper regions of the atmosphere towards the centre of the earth; and hence also the fall of relatively heavy bodies, from the impossibility of their being revolved in any lighter strata into which they may have been raised or projected. All disturbance is therefore instantly corrected, and every part of a planetary mass is forced by the rotatory motion, as conjoined with the orbicular, to seek a position in which it will have the least centripetal force. The return of a perpendicular projectile to the place of projection is illustrated by the well-known phenomenon of a stone let fall from the mast of a moving ship, or of oranges thrown up during feats of horsemanship.

The motions of the planets are, by this system, ascribed to the impulsion of a moving central mass like the Sun, whose motions are transferred to the several planets through the gaseous medium filling space. Matter being essentially inert, this central motion, so transferred, is considered as the sufficient cause of the orbicular motions of the planets; and the other motions, and the anomalies, are ascribed to causes existing between, and within, the several masses.

As no motion exists which is not necessarily caused by some other motion, we thus ascend from effects, to causes *ad infinitum;* but, as matter cannot in any manner originate its own primary motion, so this philosophy leads us to a *primum mobile* in that inscrutable cause of causes, "through whom we move and have our being."

Such is the new system of Phillips. It establishes the same law of forces, whether terrestrial or celestial, as that ascribed by Newton to attraction, viz. that the force of transferred motion is directly as the quantity of matter, and inversely as the square of the distance: hence the mathematicians have no reason to quarrel with it. It is, at the same time, not unimportant whether our reasonings are directed by a true or a false hypothesis; and, therefore, it is worthy of serious investigation, whether transferred motion may be, or may not be, a sufficient cause of all phenomena; and whether it is necessary, or not necessary, to introduce such forces as those of attraction and projection into the machinery of nature.

NOTICES OF LECTURES.

Mr. Mac Kenzie commenced his Winter Course of Lectures on the Diseases of the Eye on Monday the 5th of October, 1818, at Nine o'Clock in the morning, and not at Ten, as formerly advertised.—Further particulars may be learned from Mr. Mac Kenzie, No. 16, Newman Street, Oxford Street.

UNIVERSAL DISPENSARY FOR CHILDREN, No. 5, ST. ANDREW'S HILL, DOCTORS' COMMONS. — Dr. John B. Davis proposes to commence his Winter Course of Lectures on that branch of the Practice of Medicine which relates to the Diseases and Medicinal Management of Children and Young Persons, at the above Institution, on Monday the 2d of November.—Particulars may be had at the Dispensary.

LITERARY NOTICES.

In the press, a Treatise on Midwifery, enforcing New Principles, which tend materially to lessen the Sufferings of the Patient, and lessen the Duration of Labour. By John Power, Accoucheur, Member of the Royal Medical Society of Edinburgh.

A Manual of Practical Anatomy, for the Use of Students engaged in Dissections. By Edward Stanley, Assistant Surgeon and Demonstrator of Anatomy at St. Bartholomew's Hospital.

Introduction to a Course of Lectures on the Diseases and Operative Surgery of the Eye. By William Mac Kenzie, Member of the Royal College of Surgeons.

Observations on Dr. Wilson's Tincture, the Eau Medicinale, and other pretended Specifics for Gout and Rheumatism. By W. H. Williams, M.D., Ipswich, Fellow of the Royal College of Physicians.

Dr. Spurzheim has just published a new Work on the Physiology of the Brain, entitled, Observations sur la Phraenologie: in which he has in some measure improved on the arrangement of the Organs. He admits now the existence of thirty-five separate Organs in the Brain: among them is the Convolutions, or Organ, called by Dr. Forster, Organ of Superstitiousness or Mystery. The Work is published at Strasburg, Paris, and London.

Dr. Gall has likewise published, in Paris, another splendid folio of Plates, illustrative of the Doctrine of the Brain.

Shortly will be published, in one volume 12mo., "Laurentii Io. Rubi Epistolarum Edinburgenarum, Libri III." written during three Years' attendance on the Medical Institutions of that city; and calculated to illustrate, among other matters, the System of Medical Education pursued there, the Habits of the Students, and the General Process of Graduation in that University.

On the 4th of December will be published, the Medical Intelligencer; or, Monthly Index to the Periodical Publications of the present day; also to the Transactions of Medical Societies, and all Works containing Medical, Chemical, and Chirurgical communications, or Reviews of Medical Works, a List of New Publications, and other miscellaneous information relating to Medical Subjects.—The First Number of this Index will contain the above Intelligence for October, November, and December, and may be obtained *gratuitously* by Professional Gentlemen, on application to Messrs. Burgess and Hill, Medical Booksellers and Publishers, 55, Great Windmill Street, Haymarket. This List will be forwarded to any part of town or country by post, if previously ordered.

A METEOROLOGICAL TABLE,

From the 21st of SEPTEMBER to the 20th of OCTOBER, 1818.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Min.		Therm. Max	Min.	Rain Gauge.	Winds.	Weather.
21	29	29	28	97	59	46	16	SE.SSE...	1 Cloud.. 2 Rain..4 M..
22	29	39	29	12	66	36		SE..S..	1 Cloud.. 2 Sun..
23	29	28	29	26	61	40	13	SW..SE..	1 Mist... 2 Sun. 3 Rain..
24	29	35	29	32	64	43		SE..	1 Cloud.. 2 Sun.. 4 Starl....
25	29	35	29	15	61	46	22	SE..	1 Mist... 2 Sun.. 4 Rain.
26	29	33	29	31	61	47	14	NW.SW.	14 Rain.. 23 Sun..
27	29	34	29	33	62	48	07	S.SSE.	1 Cloud.. 2 Sun.. 4 Rain..
28	29	44	29	43	69	51		SE..	1 Cloud.. 2 Sun..
29	29	42	29	38	67	51		E.	134 Cloud.. 2 Sun..
30	29	30	29	27	68	48	16	EbN.	1 Cloud.... 4 Rain..
1	29	29	29	28	63	51		E.NE.	134 Mist... 2 Sun.
2	29	28	29	13	65	50	16	E.SE.	1 Cloud.. 2 Sun.. 4 Rain..
3	29	07	29	07	64	49	03	SW..SE..	1 Cloud.. 2 Sun.. 3 Show.
4	29	01	28	97	59	43	11	SW..	1 Cloud... 2 Sun.. & Show..
5	28	92	28	90	54	39	07	SW..	1 Sun.. & Show..
6	29	16	29	10	56	38		WbN..	1 Sun...
7	29	41	29	33	58	37		NW.	1 Sun...
8	29	49	29	40	58	40	06	W..	1 Sun.... 2 Cloud.. 4 Rain.
9	29	38	29	22	64	52		SW..	13 Sun.. 2 Cl.. 4 M.. & R.
10	29	13	29	13	61	47	04	SW..	1 Cloud.. & Showers.
11	29	15	29	10	59	39	47	SW..SE..	1 Sun... 3 Rain....
12	29	44	29	38	52	40		SW...	1 Showers. & Sun...
13	29	54	29	48	61	48		SSW...	1 Cloud.. 4 Moon..
14	29	54	29	52	61	49	13	SE...	1 Mist.. 2 Sun... 4 Rain..
15	29	54	29	52	61	54	07	SE..	1 Rain.
16	29	69	29	64	64	44	03	S..SW..	1 Cl.. 2 R. 3 Sun.. 4 M...
17	29	74	29	65	58	48	01	S..	1 Sun... 4 Rain.
18	29	60	29	58	60	42		SE.	13 Mist... 2 Sun. 4 Moon..
19	29	62	29	60	58	42		S.	134 Mist... 2 Sun.
20	29	83	29	77	57	46	03	SSE.	1 Rain. 2 Sun. 34 Mist...

The quantity of rain during the month of September was 1 inch 88-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were Cholera morbus, Cynanche tonsillaris, Diarrhœa, Enteritis, Erysipelas, Febris catarrhalis, Febris continua, Morbi biliosi, and Scabies. Variola is at present in the town, and no doubt would be very general if the majority of the children had not been previously vaccinated. Two cases of modified small-pox have occurred after vaccination, resembling varicella much more than variola: however, there can be no doubt of the nature of the disease, as one of the patients, a female, was frequently exposed to the infection of genuine small-pox; and the other, a female also, took it from the first.

THE METEOROLOGICAL JOURNAL,

From the 20th of SEPTEMBER to the 19th of OCTOBER, Inclusive.

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.			Barom.			De Luc's Hygrom. *Dry.*	*Damp.*		Winds.		Atmo. Variation.		
20		,04	55	62	48	29	97	29 98		10	15	SE	E	Fine	——	——
21		,09	51	61	50	29	61	29 40		12	19	E	SE	Fine	Rain	Clo.
22		,20	53	64	51	29	73	29 59		11	17	S	S	Fine	Rain	——
23		,05	56	62	55	29	68	29 72		15	15	SSE	SE	Rain	Clo.	Fine
24		,09	59	62	58	29	70	29 71		13	17	SE	SE	Clo.	Fine	Rain
25		,21	59	65	60	29	67	29 56		15	20	SE	N	Rain	——	Clo.
26		,33	63	67	59	29	59	29 70		23	20	NE	N	Fine	Clo.	Rain
27		,24	60	65	58	29	67	29 61		17	20	SE	SSE	Fine	Rain	Fine
28		,17	61	67	54	29	68	29 70		18	13	SE	SE	Fine	Clo.	Fine
29		,11	59	66	53	29	70	29 73		12	10	SW	SW	Clo.	Fine	——
30		,07	55	65	57	29	70	29 57		10	11	SE	SE	Clo.	——	——
1			63	67	58	29	55	29 50		7	9	ESE	SSE	Fine	——	——
2			62	65	54	29	51	29 53		11	12	SE	SE	Fine	——	——
3		,15	60	63	55	29	58	29 69		16	24	SE	SE	Fine	——	——
4		,03	59	62	53	29	77	29 72		19	20	SE	SE	Fog	Clo.	——
5		,04	59	61	55	29	59	29 54		20	17	SW	SW	Fog	Rain	——
6		,17	60	63	50	29	54	29 54		13	14	SW	WSW	Fine	Rain	Fine
7		,10	53	59	49	29	50	29 34		14	15	WSW	SW	Fine	Rain	Fine
8		,13	53	60	43	29	76	29 64		13	17	WSW	W	Fine	Rain	Fog
9		,19	43	47	47	29	79	29 89		20	21	W	WNW	Fog	Fine	——
10			49	53	50	29	81	29 79		17	19	W	W	Fog	Fine	Clo.
11			53	59	53	29	75	29 59		20	20	W	SW	Fog	Rain	Clo.
12		,12	59	62	49	29	55	29 53		21	20	S	SSW	Clo	Rain	——
13		,22	53	59	49	29	72	29 91		19	15	S	S	Fine	——	——
14			51	60	53	29	86	29 96		15	16	S	S	Fine	——	——
15			57	63	55	30	00	29 96		13	19	S	SSE	Fine	——	——
16			59	64	57	29	92	29 95		17	16	SSE	SSE	Fine	——	——
17			60	67	55	29	97	30 00		16	17	SSE	ESE	Clo.	Fine	——
18			57	66	57	30	07	30 00		16	20	E	E	Fog	Fine	——
19		,03	59	66	55	30	00	30 00		21	19	S	S	Clo.	——	Fine

The quantity of rain fallen in the month of September is 2 inches and 73-100ths

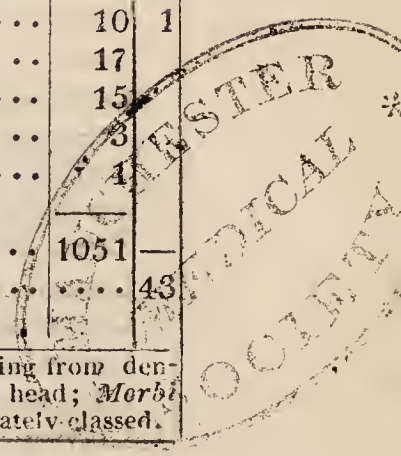
A REGISTER OF DISEASES

Between SEPTEMBER 20th and OCTOBER 19th, 1818.

DISEASES.	Total.	Fatal.
Abortio	2	
Abscessio	6	
Amenorrhœa	19	
Anasarca	17	3
Angina Pectoris	1	
Aphtha *lactentium*	7	
Apoplexia	5	3
Ascites	6	2
Asthenia	11	
Asthma	32	2
Atrophia	1	
Bronchitis *acuta*	1	
——— *chronica*	3	
Cancer	3	
Cardialgia	7	
Carditis	1	
Catarrhus	15	
Cephalalgia	10	
Cephalæa	8	
Chlorosis	2	
Chorea	2	
Cholera	16	
Colica	3	
Coma	5	
Contractura	2	
Convulsio	2	
Cystitis	1	
Cynanche *Tonsillaris*	16	
——— *maligna*	3	
——— *Trachealis*	1	
Diabetes	4	
Diarrhœa	49	2
Dysenteria	18	2
Dyspepsia	28	
Dyspnœa	6	
Dysphagia	1	
Dysuria	2	
Ecthyma	1	
Eczema	4	
Eneuris	1	
Enteritis	10	3
Entrodynia	4	
Epilepsia	7	1
Epistaxis	4	
Erysipelas	6	
Erythema *lœve*	2	
Febris *Intermittent*	19	
——— *catarrhalis*	67	
——— *Synocha*	5	
——— *Typhus mitior*	21	
Febris *Typhus grav.*	12	6
——— *Synochus*	37	
——— *Puerpera*	4	
——— *Remit. Infant.*	14	
Fistula	2	
Fungus	2	
Gastritis	7	
Gastrodynia	10	
Gonorrhœa *pura*	5	
Hæmaturia	1	
Hæmoptoe	12	1
Hæmorrhois	3	
Hemiplegia	2	
Hepatalgia	3	
Hepatitis	9	1
Herpes *Zoster*	1	
——— *circinatus*	2	
Hydrocephalus	4	1
Hydrothorax	4	2
Hysteria	5	
Hysteritis	1	
Icterus	3	
Impetigo *figurata*	3	
——— *sparsa*	2	
——— *erysipel*	1	
Impetigo *rodens*	1	
Ischias	3	
Ischuria	4	
Lepra	2	
Leucorrhœa	8	
Mania	5	1
Menorrhagia	15	
Morbi Infantiles*	32	2
——— Biliosi*	21	
Nephralgia	1	
Obstipatio	10	
Odontalgia	10	
Ophthalmia	19	
Otalgia	2	
Palpitatio	5	
Paralysis	4	
Paronychia	4	
Peripneumonia	3	
Peritonitis	14	
Pertussis	7	
Phlegmasia *dolens*	1	
Phlogosis	3	
Phrenitis	2	
Phthisis Pulmonalis	22	9
Physconia	4	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Plethora	2		Scarlatina *simplex*	5	
Pleuritis	10		Scirrhus	1	
Pleurodyne	11		Scorbutus	1	
Pneumonia	6		Scrofula	14	
Podagra	4		Spasmi	1	
Pompholyx *benignus*	1		Splenitis	1	
Porrigo *larvalis*	3		Strictura	4	
——— *decalvans*	1		Syncope	1	
Porrigo *scutulata*	2		Syphilis	27	
——— *favosa*	3		Tabes Mesenterica	3	
Prolapsus	3		Vaccinia	19	
Prurigo *mitis*	6		Varicella	3	
——— *formicans*	3		Variola	10	1
Psoriasis *inveterata*	2		Vermes	17	
Purpura *hæmorrhagia*	1	1	Vertigo	15	
Pyrosis	3		Urticaria *febrilis*	3	
Rachitis	1		——— *evanida*	1	
Rheuma, *acutus*	14				
——— *chronicus*	36		Total of Cases	1051	—
Rubeola	1		Total of Deaths		43
Scabies	89				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.



Observations on Prevailing Diseases.

AFFECTIONS of the biliary organs still linger among us. They have assumed lately the character of either simple diarrhœa, or a kind of semi-dysentery, rather than that of decided cholera. In some cases of looseness which appeared to continue from habit, and which resisted the common astringent remedies, an emetic proved of signal service in arresting the course of the complaint. When the disorder puts on a dysenteric character, the remedial indications are necessarily more complicated; especially in cases where the mucous membrane of the intestinal canal becomes the seat of chronic or sub-acute inflammation.

Fevers, we are sorry to say, especially in some districts, are considerably upon the increase. In reference to this particular, one of our correspondents has favoured us with the following remarks: "Typhus, which had almost disappeared in the N. E. district, has again occurred in situations where filth had accumulated, and ventilation been prevented. In cases of those above the poorer class, determinations to the head demanded bleeding, and which was employed in some cases both generally and locally, with great advantage. In two cases during convalescence from fever, at first having the form of synochus, but afterwards assuming a typhoid appearance, hepatitis occurred, and yielded only to bleeding. In another enteritis came on, and occasioned death in less than forty-eight hours. A disposition to peritonæal inflammation, and to inflammation of the mucous membrane of the intestines, was evident in many cases."

The two especial characters of those cases of the epidemic which have come under our immediate notice, have been, 1st. a remarkable tendency to affections of the head; and, 2dly, the suddenness with which both these symptoms and the disorder itself have often terminated under vigorous treat-

ment. One particular instance occurred of a female servant in a family, who was in the evening of one day lying on the floor of her bed-room, raving with maniacal fury, and on the next forenoon sitting up in her bed almost totally free even from any pyrexial irritation. The treatment in this, and some other cases of a similar nature, was confined to the exhibition of one grain doses of elaterium, with cathartic extract, and the application of a blister to the neck. Elaterium has appeared to us abundantly serviceable in acting speedily and vigorously upon the intestinal canal, and thus preventing the full establishment of fever.

Examinatio post mortem.—In one case of death from fever, complicated with inflammation of the mucous membrane of the intestine, the ileum, for the length of eight or ten inches, was found either gangrenous or in a state approaching to it.

MONTHLY CATALOGUE OF BOOKS.

The London Dispensatory: forming a Practical Synopsis of Materia Medica, Pharmacy, and Therapeutics: illustrated with many Useful Tables, and Copper-plates of Pharmaceutical Apparatus. By Anthony Todd Thomson, F.L.S., &c. &c. Second Edition. 8vo.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Dr. Walker, Mr. Gray, *and* Mr. Lease. Dr. Veitch's *Observations on the Importance of the Surface of the Body to Health, and as Influencing Disease, have also this moment come to hand.*

Dr. W.'s *and* Dr. V.'s *Essays both in the next Number, if possible.*

We still continue obliged to C. H. H. *Editors, as well as Authors, ought ever to be pleased rather than offended by fair criticism.* C. H. H., *however, must be aware, that, as it regards Original Communications, the responsibility rests with the respective Writers of Papers.*

Erratum in the last Number—Page 338, near the bottom, for *os tinea* read *os tincæ.*

*** *Communications are requested to be addressed (post paid) to*

Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

No. 60. DECEMBER 1, 1818. VOL. X.

PART I.

ORIGINAL COMMUNICATIONS.

I.

A Sketch of the Medical and General Topography of Huddersfield, and its adjacent District. By J. K. WALKER, M.D., &c. Senior Physician to the Huddersfield Dispensary.

I OUGHT to apologize for again drawing upon the attention of the readers of the REPOSITORY so largely as the subject now before us has insensibly led me: and if in a field so wide, and so fraught with rich materials as Natural History, and especially the subject of local botany, I have wandered either to the right or to the left, I must claim the usual privilege of botanists, who delight in excursions, little regarding the tract they pursue, so that they do not miss the object of their search. Whoever is versed in the history of our art will have remarked the profusion of reputed remedies drawn from the vegetable kingdom in former days, and the frequent absurd ascriptions attached to each; and in contrasting the present system of medicine with that practised by our forefathers, he will compare the farraginous combinations of the one, with the concise simplicity of the other. An overweaning confidence in the efficacy of herbs seems to have been the medical foible of that day. Ours appears to me to lie in the opposite extreme, in a too indiscriminate distrust in their virtues.

In a rude* state of society, while man, "a stranger to the

* In some of the mountainous and sequestered parts of this district, something of this primitive simplicity is yet alive; and I have counted

savage arts of life," did not introduce by foreign luxuries diseases also that are foreign to his native soil; it was the less necessary to search amongst exotics for remedies to meet indigenous diseases; and it is probable that to each climate are allotted productions adapted to the respective diseases of its inhabitants: but foreign intercourse and foreign luxuries have modified so many of these diseases, and introduced others, that it is no longer to our own fields that we can look for effective sanatives; and it is fortunate that the same foreign intercourse that has imported the bane, has furnished us, at the same time, with many valuable antidotes. Another cause of the partial supersession of vegetable remedies is ascribable to the splendid discoveries of modern chemistry, which have eclipsed those of all former ages, and unfolded to us a rich mine of resources of which our forefathers had but a faint and uncertain glimpse. A certain pruriency after novel remedies is no infrequent characteristic of our art, and it is not wonderful that, with such a vast accession of auxiliaries from the mineral, we should, for a time at least, lose a portion of our attachment to the vegetable kingdom.

But it is not the Physician alone, but every lover of natural history, that will draw from botanical science a mine of intellectual delight, which will indemnify him with usury for all his researches. Its subserviency to the arts, to agriculture, to the wants of domestic life, are important, yet still subordinate motives to this health-inspiring study; to the contemplative mind that loves

> "To trace each herb and flower that drinks the morning dew,"

there is reserved a higher motive in that boundless vista of created wonders, no where more clearly seen than through the medium of the vegetable kingdom.

If there be other parts in the stupendous scheme of the universe more brilliant to the gazing eye of the mere philosopher, in what part of the creation shall we find the impress of a divine hand more manifest than in the structure of the vegetable world, where in every leaf there is a lesson more

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under one roof more than fifty different specimens, kept for medical purposes, whose names and properties were not unknown. Indeed, it is only in such uncultivated spots that the wild negligence of nature sports in her utmost luxuriance; and it is in this mingled wilderness of herbs, which she *spontaneously* unbosoms, that the botanist culls his best specimens. Those marks of unsubdued virgin nature which render the landscape so attractive to the botanist, are not so frequent where cultivation has attained any height. This may be one cause why in the infancy of society, medical botany was more common amongst the rustic poor, and every cottage had its herbal.

instructive than the pen of moralists can convey; where there is not a blade of grass that grows, nor a flower that blooms, that does not bear upon it indelible marks of a first cause; the same at whose voice in the beginning, "the earth brought forth grass and herbs, and every herb its seed after its kind." Whatever was the progress of botany in other countries, we find very little recorded of the indigenous botany of our own island before the time of our countryman Ray, who brought to the subject a rich and rare union of industry the most unparalleled, and learning the most profound. His Synopsis methodica Stirpium Britannicarum is a work from which even now the lover of English botany may cull many useful materials; and the subsequent systems have superseded his classification of plants, so much the theme of admiration in his day; yet its merit has drawn forth the encomiums of almost every scientific botanist. Indeed it is only those who are proficients in the science that are able to appreciate the ability with which he has delineated the affinities of plants. To such no plan of arrangement affords equal pleasure with that of Ray. Though many eminent botanists have since his time enriched the science with many splendid discoveries, and each succeeding author has added his own gleanings to the general stock, yet we do not find any other account of British plants prior to the publication of the Flora Britannica of Sir John Hill, a work avowedly unworthy of its author. In 1776 Dr. Withering produced A Botanical Arrangement of all the Vegetables naturally growing in Great Britain; and since his time much has been achieved in the way of exploring particular districts, and many important contributions have been made to the British Flora. But whoever would acquaint himself with the history and present state of English botany, will do well to consult that invaluable work of Dr. J. E. Smith, who has more than any other individual facilitated the advancement of the botany of his country. To one familiar with the science, it will be evident that it is not by the casual inspection of a particular district, even by the most eminent botanist, that its natural productions are to be determined, but from the combined exertions of local as well as general writers. The tourist who shall narrow his observations of a district to one season of the year only, will give but a meagre and partial view of its vegetation. Even the resident botanist must lack no vigilance if he hopes to glean a correct knowledge of each plant as it successively presents itself in a state of inflorescence*. The doctrine of the isothermal distribu-

* Mr. Humboldt observed, that certain forms became more common on approaching the pole, while others augment towards the

tion of plants (from the humble moss that survives above the level of perpetual snow to the majestic tenant of the torrid zone,) will create a new interest, as well as a new æra, in this department of science; and the long unseen relationship which obtains throughout each of the kingdoms of nature, though it will augment the labour of the naturalist, will doubtless add many a bright page to the record of his discoveries. Let each then furnish his contingent, however scanty, to this republic of science, and we may hope to see a superstructure reared upon this basis, unlike too many of the fanciful speculations of our day, but which shall stand to succeeding ages as a solid fabric, unimpaired amidst the wreck of systems and the revolutions of science.

I have said that local botany has at length asserted its affinity with other branches of natural history; but I think its most remarkable connexion will be found in local entomology. We learn from Latreille, that insects which inhabit the plains of colder countries are found upon the mountains of warmer, just as is the case with many plants*. The difference of ten or twelve degrees of latitude, we are told, occasions always at an

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equator; others acquire their maximum in the temperate zone: and these laws are so constant, that if we know in a country the number of species of one of the families of which M. de Humboldt has given a table, we may nearly conclude from it the total number of plants, and that of the species of the other families.—Vide his Prolegomena de Distributione geographica Plantarum secundum Cœli Temperiem, et Altitudinem Montium.

* Tropical climates seem to have the power of clothing both the animal and vegetable tribes with more brilliant colours than these northern regions can produce, which a few examples will verify. In the genus papilio, the most elegant of the European (Equites), is P. Machaon. India produces the magnificent P. Priamus. Bombyx pavonia minor is, perhaps, the largest, and certainly the most elegant of the British bombyces; but Asia and America produce the bombyx Atlas, whose immense falcated wing expand nine inches. The hepialus humuli, the female of which expands at most three inches, and the male two inches, is the largest European species of the genus; Insects of the same genus, from New Holland, are giants in comparison of this. In the genera scarabeus, carabus, cerambix, buprestis, &c. &c. the European species are very inferior in size and beauty to those of South America, &c. It is true, however, that these observations will not hold good in every instance, either in insects or plants. The digitalis purpurea, nymphæa alba, &c. have much the air of exotic productions; so in the insect tribes papilio Atalanta, Iris, Io, Aglaia Adippe, and bombyx Caja, dominula, &c. may, in the opinion of British naturalists at least, dispute the palm with some of the most beautiful insects of foreign climes.

equal height particular insects, and when the difference amounts to twenty or twenty-four degrees, almost all insects are different. A learned friend of mine, who has devoted much time to the study of entomology, has remarked a material difference between the insects of this district and those of more southern latitudes; and as he probably may favour the public with his researches, I shall not attempt to anticipate him here. Birds too have their geography, and are always influenced by the elevation and nature of the soil, and its vegetable productions. The tetrao (the grouse) may serve as an instance, which is common on the extensive moors of this district and in other parts of the county, and probably may once have been common over most parts of the island, when a great part was covered with heath; but the improved face of the country has thinned their numbers, and the industry of man is making daily encroachments on the domains of this interesting tribe. The vaccinium and the erica being their principal food, we are sure that to extirpate this vegetation would be a certain sentence of banishment to these winged denizens of the moors. Most districts have some birds of the passerine kind; but it is observed that there are fewer here than in countries where hedge rows are more prevalent. Stone fences afford neither shelter nor food for this beautiful tribe, who desert us for more genial climates. Such, however, of these little painted songsters as draw their principal aliment from the insect tribe, may still be heard filling our groves with harmony*. The turdus musicus and the merula are oftener heard than the bullfinch or any of the fringilla genus which abound in agricultural districts. This is certainly not a favourite neighbourhood with the granivorous tribe of birds, a circumstance not to be wondered at when it is considered we owe the major part of our cerealia to our agricultural neighbours. The illecebrum, which forms so favourite a granary with many small birds, I have not observed indigenous in this district, and the linum perenne is not abundant. In this mountainous district a profusion of lichens, hypna, brya, polytricha, are to be found, the bare enumeration of which would be a serious encroachment on the pages of the Repository. The fungi too in their various species are a very numerous tribe, and plants of the conferva genus are to be found with musci innumerable.

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* Of birds, we have, in the uncultivated parts of this district, the strix brachyotus, which appears early in September, turdus torquatus, (muscicapa atracapilla has been seen here this summer); caprimulgus europæus, tringa alpina, charadrius pluvialis, and some others not very common.

We cannot contemplate without wonder the several links which form the chain of connexion throughout the kingdoms of created nature; what adaptation of the vegetable to the mineral, and of the animal tribe to both! and such is the beautiful concinnity pervading the whole, that a profound naturalist needs only to know the general meteorology, the nature and elevation of the soil, to form a tolerably correct estimate of its natural history; and such is the unerring nature of this law, that it adapts itself with admirable precision to every part of our system, and is no less conspicuous in every corner of the universe, from the meanest herb that vegetates, to the spheres revolving in the firmament. In this chain of causes and effects, the first link of which is rivetted to the throne of Omnipotence itself, we discern in every link something essential to the preservation of the whole. We do not indeed always see in what way all these links are kept together, yet in proportion as we have been able to fathom deeper into the arcana of creation, every succeeding discovery has unfolded to our eyes the indissoluble relationship which each part bears to the whole, and how, if this catenated series were once broken, the shock might be felt throughout every kingdom of created nature.

In describing the local botany of a district, the grasses must always be a leading object of notice. Other herbs are more under the dominion of casualties, and are destroyed by disease, insects, &c.; but grasses are Nature's peculiar care. In whatever climate man takes his abode, there are found grasses, upon which various animals feed, that minister to human aliment, and seem instinctively to abstain from the flower and seed bearing stems, as essential to the future propagation of the grass. The principal grasses found in this district are the anthoxanthum odoratum, cynosurus cristatus, festuca pratensis, festuca fluitans, poa pratensis, poa aquatica, poa flexuosa, poa distans, aira præcox, aira flexuosa, holcus lanatus, bromus mollis, agrostis vulgaris, phalaris arundinacea, alopecurus geniculatus, melica nutans, and dactylis glomerata, with many others I doubt not which yet remain to be discovered. In the annexed synopsis of plants indigenous in this district, I have subjoined the leading medicinal properties of such as are less familiar, having always been in the habit of availing myself of these succedanea amongst the poor, wherever it was possible to use them to supersede more expensive exotics, a custom which I think ought oftener to be kept in view in charitable institutions, where economy is requisite.

Catalogue of Plants in the Neighbourhood of Huddersfield.

1. MONANDRIA.

1. *Monogynia.*

1. Hippuris vulgaris.

2. *Digynia.*

2. Callitriche verna.

DIANDRIA.

1. *Monogynia.*

3. Cypripedium Calceolus.
4. Circœa lutetiana.
5. Salvia pratensis.
6. Fraxinus.
7. Veronica agrestis.
8. ——— alpina.
9. ——— arvensis.
10. ——— Beccabunga.
11. ——— hederifolia.
12. ——— montana.
13. ——— serpyllifolia.

2. *Digynia.*

14. Anthoxanthum odoratum.

TRIANDRIA.

1. *Monogynia.*

15. Sparganium ramosum.
16. Iris Pseud-acorus.
17. Schœnus albus.
18. Eriophorum vaginatum.

2. *Digynia.*

Gramina (vide supra.)

4. *Enneagynia.*

19. Empetrum.

TETRANDIA.

1. *Monogynia.*

20. Galium Aparine.
21. Asperula odorata.
22. Plantago lanceolata.
23. Urtica dioica.
24. Alchemilla vulgaris.
25. ——— arvensis.
26. Scabiosa arvensis.
27. Sherardia arvensis.

3. *Tetragynia.*

28. Sagina procumbens.
29. —— apetala.
30. —— erecta.

PENTANDRIA.

1. *Monogynia.*

31. Anchusa sempervirens.
32. Pulmonaria angustifolia.
33. ——— officinalis.
34. Myosotis palustris.
35. Lysimachia Nummularia.
36. ——— nemorum.
37. Echium vulgare.
38. Lithospermum arvense.
39. Hedera Helix.
40. Borago officinalis.
41. Lycopsis arvensis.
42. Jasione montana.
43. Lonicera.
44. Convolvulus arvensis.
45. ——— sepium.
46. Verbascum Lychnitis.
47. Vinca.
48. Hyoscyamus niger.
49. Solanum Dulcamara.
50. Campanula hederacea.
51. Caucalis Anthriscus.

2. *Digynia.*

52. Sanicula europæa.
53. Angelica sylvestris.
54. Œnanthe fistulosa.
55. Conium maculatum.

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10. Has been used as food, and some others of the species as an ingredient in British tea. 14. That sps. of grass that gives the odour to new hay. 20. Slightly aperient, and useful in chronic eruptions. 21. Was formerly recommended in hepatic affections, but now little regarded. 22. A favourite genus with the poor. 24. Astringent, and in the older writers recommended in uterine affections, and in intestinal fluxes. 26. Both the scabiosa arvensis and scab. succissa are of considerable efficacy in uterine obstructions. 32. Formerly recommended in phthisical affection. 35. Recommended by Boerhaave in hæmorrhages. 39. Used at present in icteric cases with some success. 44. Root used as a cathartic, but not to be depended upon. 48. Vide Edinb. Pharmacop. 49. Ib. 55. Both the œnanthe

56. Chærophyllum sylvestre.
57. Tordylium nodosum.
58. Scandix odorata.

3. *Trigynia.*

59. Alsine media.
60. Sambucus nigra.

5. *Pentagynia.*

61. Linum perenne.
62. —— catharticum.
63. Sibbaldia procumbens.

HEXANDRIA.

1. *Monogynia.*

64. Convallaria majalis.
65. Acorus Calamus.
66. Juncus sylvaticus.
67. Allium ursinum.
68. Hyacinthus non-scriptus.
69. Narcissus pseudo-narcissus.

2. *Trigynia.*

70. Colchicum autumnale.
71. Rumex acutus.
72. —— obtusifolius.

3. *Polygynia.*

73. Alisma Plantago.

HEPTANDRIA.

1. *Monogynia.*

74. Trientalis europæa.

OCTANDRIA.

1. *Monogynia.*

75. Epilobium montanum.
76. ——— angustifolium.
77. Vaccinium Myrtillus.
78. ——— Vitis idœa.
79. ——— Oxycoccus.
80. Erica vulgaris.
81. —— cinerea.
82. —— Tetralix.

2. *Trigynia.*

83. Polygonum Bistorta.
84. ——— Persicaria.

ENNEANDRIA.

1. *Hexagynia.*

85. Butomus umbellatus.

DECANDRIA.

1. *Monogynia.*

86. Pyrola rotundifolia.
87. Andromeda polifolia.
88. Arbutus Uva ursi.

2. *Digynia.*

89. Saponaria officinalis.
90. Chrysosplenium alternilium.
91. ——— oppositifolium.

3. *Trigynia.*

92. Cucubalus Behen.
93. Stellaria nemorum.
94. ——— uliginosa.
95. ——— holostea.
96. ——— glauca.
97. ——— media.
98. ——— graminea.

4. *Pentagynia.*

99. Sedum acre.

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fistulosa and œn. crocata have been mistaken for this plant: for its virtues, see Pharm. Edinb. 59. Has been used when boiled as a culinary herb. 64. May lily was formerly used as an ingredient in the suppurating cataplasm of the Edin. Pharmac. And it is said that a durable green colour may be prepared from its leaves. 65. Carminative and stomachic, and formerly used to be an ingredient in the mithridate and theriac of the Lond. Pharm. 70. Vide Pharm. Edinb. 73. Alisma Plantago, the newly proposed Russian remedy for hydrophobia, grows in several parts of Kirkhenton parish. 77. Fructus, bilberries. 78. Cowberry. 79. Cranberry. 80. A decoction of the flowers has been drunk with benefit in lithiasis, and the plant has been used as a substitute for hops, and for oak bark in tanning. 83. Used both internally and externally where astringing is the only intention. 88. Vide Pharm. Edinb. 89. Thought to resemble sarsaparilla in some of its properties. 92. Our kitchen gardens scarcely afford a better flavoured vegetable than the young

100. Oxalis Acetosella.
101. Lychnis Flos cuculi.

DODECANDRIA.

1. *Monogynia.*

102. Asarum europæum.

2. *Digynia.*

103. Agrimonia Eupatoria.

3. *Trigynia.*

104. Reseda Luteola.
105. Euphorbia exigua.

4. *Dodecagynia.*

106. Sempervivum tectorum.

ICOSANDRIA.

1. *Monogynia.*

107. Prunus spinosa.

2. *Pentagynia.*

108. Spiræa Ulmaria.

3. *Polygynia.*

109. Rosa canina.
110. —— spinosissima.
111. Rubus idœus.
112. —— fruticosus.
113. Tormentilla erecta.
114. ———— reptans.
115. ———— aurea.
116. Tormentilla officinalis.
117. Potentilla reptans.
118. ———— anserina.
119. ———— alba.
120. ———— aurea.
121. ———— verna.
122. Fragaria vesca.
123. Geum urbanum.

POLYANDRIA.

1. *Monogynia.*

124. Papaver Rhœas.
125. Chelidonium majus.
126. Actæa spicata.

2. *Polygynia.*

127. Thalictrum flavum.
128. Ranunculus acris.
129. ———— bulbosus.
130. ———— Ficaria.
131. ———— Flammula.
132. ———— hederaceus.
133. ———— gramineus.
134. ———— repens.
135. ———— aquatilis.
136. ———— arvensis.
137. ———— auricomus.

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tender shoots of this herb when boiled. 100. Vide Ph. 103. Much used by the poor here, and is confessedly useful in supporting the tone of the viscera, and is said to form an ingredient in some of our imitation teas. 104. From this plant a yellow dye is extracted: and here by the way I would call the reader's attention to the colouring principles of our indigenous herbs, so much neglected for the sake of foreign drugs in the dyeing process. It is believed by competent judges, that many of our native vegetables contain this principle in a higher degree than has yet been suspected. It is at any rate always a subject of interest in a manufacturing country. 108. Ranked by some as an astringent and diuretic. 109. Vid. Pharm. Lond. 113. Root L. E. D. see Lewis's Mater. Medic. 117. Astringent. 123. Root has been employed as useful in dyspepsia and intestinal debility. 124. Flowers upon expression yield a red juice, and sometimes supply the place of rose leaves in infusion. 125. Fol. a very useful medicine in visceral obstructions, in icteric and scorbutic affections. 127. Roots and leaves said to yield a fine yellow. 130. Often used in hæmorrhoidal affections. 131. Emetic. 138. Ground ivy: a very popular herb with the poor in affections of the lungs, and is besides a useful corroborant. Some infuse the dry

DIDYNAMIA.

1. *Gymnospermia.*

138. Glecoma hederacea.
139. Betonica officinalis.
140. ——— hirta.
141. Galeobdolon luteum.
142. Mentha aquatica.
143. Galeopsis Tetrahit.
144. Ajuga reptans.
145. Nepeta cataria.
146. Stachys sylvatica.
147. Prunella vulgaris.
148. Thymus serpyllum.
149. Scutellaria galericulata.
150. Marrubium vulgare.

2. *Angiospermia.*

151. Euphrasia officinalis.
152. Pedicularis sylvatica.
153. Scrophularia aquatica.
154. Digitalis purpurea.
155. Antirrhinum Linaria.
156. Orobanche major.

Fearful of already having encroached too largely on the attention of the reader, I shall defer the insertion of the remaining classes to some future opportunity. I could, indeed, without a violation of accuracy, have added more plants to this list; but it appeared to me preferable to omit them, where it was not in my power to produce the name of the spot where they were to be found. To those who think slightly of the utility of local botany, one plant more or less will be of little importance; to the botanist every fresh discovery brings its reward. If the sentiments here propounded shall be the means of enlisting but a single labourer more to this enchanting vineyard, where there is so much unbroken ground to occupy him, and so rich a prospect of harvest to reward him, I shall not have laboured in vain; happy, while I have myself drawn so rich a fund of pleasure from this fascinating pursuit to have contributed to the augmentation of the science, by exciting a similar pleasure in others.

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leaves in malt liquor, others in milk. 139. This plant possesses a nidorous sickly smell, and is valued as a nervine. 142. This tribe have all more or less of a carminative property. 144. Fol. mildly astringent. 145. Esteemed as highly antispasmodic, and efficacious in some uterine disorders. 147. It stands recommended in hæmorrhages and fluxes. 148. Its virtue resides in a volatile oil, and is used as a nervine. 150. Regarded as an expectorant. 151. Formerly celebrated as an ophthalmic, but now fallen into disuse in this country. 154. Vide Lond. Pharm. transl. 155. Employed in jaundice and dropsy, and infusions of the flowers said to be very efficacious in cutaneous diseases.

II.

Remarks on the Necessity of Attention to the Surface of the Body in the Treatment and Prevention of several Complaints; with a Recommendation of the more general Employment of the Vapour-Bath. By James Veitch, M.D. Staff-Surgeon Royal Navy, Member of the Royal Medical Society of Edinburgh, and Author of a Treatise on Yellow Fever, &c. &c.

[This paper has been transmitted to us by its Author for insertion in the Repository. It was written in 1809; but as it has not been published hitherto in any shape, we deem it an acceptable communication for our Journal.—Edit.]

Many cases might be adduced in proof of the most perfect relief having been obtained from the use of the vapour-bath, constructed on the highly improved principles which have been adopted. But it is to be hoped that the cases which have been brought forward will excite attention, and give rise to a trial of the remedy amongst others: and we entertain no doubt of the most satisfactory results. To the army and navy, where so many men are annually invalided from diseased joints, chronic rheumatism, and complaints of the breast and of the bowels, depending often upon the state of the surface of the body, it cannot fail to be an instrument of much national importance, by restoring many so afflicted to the service of their country. When the vigour of the constitution is so far gone from age or other causes, it is pleasing to be in general able to afford some relief, although the constitutional strength cannot be fully restored. We are, therefore, humbly of opinion, that their erection* at all naval and military hospitals would prove a measure of much public utility. The action of the vapour-bath, whether applied generally or topically, was continued from a quarter of an hour to twenty minutes each time.

The period for applying this remedy was regulated by the effect intended to follow its use; where the object was to produce a free, a copious, and continued diaphoresis, the evenings were preferred; but where it was the intention that the stimulating influence of heat should operate upon the system, without uniting the power of a continued perspiration, the day was selected. It invariably produces a considerable and free cutaneous action, and copious discharge; it relieves pain, and gives pliancy to those parts that are become stiff and

* The Admiralty gave orders for their erection at Haslar and Plymouth, with great advantage to the cause of humanity.

rigid; it is therefore likely to contribute with much certainty to the cure of many diseases, which, if attentively examined, will be found to draw their origin from, and continue to be supported by, morbid actions, originating and existing on the surface of the body. The effect of cordials and of medicine on the stomach, before they can have entered the system, of vital air on the lungs, of heat and of cold on the surfaces of our frame, are all convincing proofs of the greatly extended influence and connexion of this part of the structure of our body. No truth appears to our minds more certain, than that we often lose sight of the original diseased action, although existing in full force, in contemplating the sufferings of some vital and more essential organ of life, to which the sentient and deranged functions of the surfaces have communicated their morbid impressions. The class of diseases thus originating, and thus supported, are, in our opinion, much more numerous than is generally imagined. The powers of cold, the primary actions of which must commence on the surfaces of our bodies, are certainly great; but those of heat, when applied through a proper medium, will be found no less remarkable in preventing, as well as curing, many diseases. The means of concentrating heat in a variety of ways we certainly possess; but this effort of philosophy we have probably heretofore not made the fullest use of in medicine. The warm-bath, a poultice, or flannel dipped in warm water, are at present the only resources of medicine in this way. The objections to all those modes of application are too obvious to require any serious notice or argument, as they must continue, from the want of a well-regulated mode of supplying caloric, to lose temperature by evaporation and otherwise, from the moment they come in contact with the body. They really are, during the greatest length of time of their application, abstracting, instead of communicating, heat. The man who enjoys health, and who is desirous of maintaining it, ought to gradually habituate the surfaces of his body to the vicissitudes of the climate under which he lives; therefore, if the climate is subject to great varieties of temperature, he should accustom himself by degrees to the influence of such vicissitudes: and in attaining an object of so much importance to society, and to the individual, the powers of the vapour-bath, of the cold and of the shower-bath, as constructed by the Hon. Basil Cochrane, cannot fail to aid materially every exertion in this way.

The occasional use of aqueous vapour, arising from steam, and of the cold baths, will be attended with the most beneficial consequences to the human frame; by inuring the system to the actions of a high and a low temperature, which

is a plain, easy, and practicable means of rendering the body less susceptible of a depression of its vigour from a diminished temperature, as well as less likely to be acted upon by the more elevated degrees of heat, to which the inhabitants of some climates are perpetually subject; and from which almost all suffer in a greater or less degree. The vapour-bath may therefore be used to accustom the body to a high temperature, while the cold and shower-baths will habituate the system to the impressions of cold. Flannel to the invalid, and those advanced in life, is of much value; but it ought not to be indiscriminately recommended to the young, the vigorous, and healthy; as it keeps up a constant and injurious irritation on the surface of the body. Nature has formed us to depend much upon external causes; and she has so arranged, that the sources of our growth, of our vigour, and of our enjoyments, whether intellectual or corporeal, should also be the sources of disease and of death. The elements which surround us, (I use this phrase in compliance with custom,) the food and drink by which we are sustained, make their first impressions on the surfaces of our bodies, by adding vigour to the system before they can enter the circulation, and are thus, as a law of Nature, from the greatly varied objects of animal and of vegetable life over which they extend their dominion, at once, by their external action, the causes of health, of disease, and of dissolution. While we see one of our species perishing, we behold another just emerging from the mother's womb, to commence its intercourse with society; and a third in possession of the fullest extent of mental and corporeal faculties, under the same influence. To speak figuratively: the powers which at this moment waft one vessel safely to her port, are either mutilating or entirely destroying others. It is on the surface of the ocean that the tempest first begins, and from thence extends itself with such awful and destructive force to the inmost recesses of the deep. The ocean is seldom originally disturbed from internal causes; and I am inclined to believe that the same reasoning will apply in many cases with equal truth to the diseases of the human body; and none probably are more illustrative of this truth than those maladies that are improperly called hereditary; as many of these tendencies can be rapidly brought to the state of actual disease, by impressions directed to the sources under discussion.

No species of contagion can act so generally on the human frame as excessive heat does in tropical climates; and when we take into consideration the influence of all sudden transitions from heat to cold, from indolence to activity, and *vice versâ*, it is somewhat remarkable in an age of inquiry, that contagion should be brought forward to solve phenomena, ascribable, in a great measure, to climate alone. I have been

a witness to transports arriving in the West Indies, with young and healthy troops; but before they had been well at an anchor, a great part of these poor fellows were attacked with fever; and on the principle that this most destructive fever was of a contagious nature, fumigations were employed to arrest its progress but without effect; which was not surprising, as the real cause of the disease was overlooked, and those precautions which were of essential and vital importance in checking its diffusion were utterly neglected. All stimuli invariably lose their influence over the living fibre from continued action and use; and even mental emotions and passions may be here included, as I believe that mental, like material influence, may have considerable effect in the production of this disease.

Those who are principally the objects of its invasion are the young, the vigorous, and the robust, whose passions are keen, and whose sensibilities subject them to the highest state of excitement. Opium, wine, arsenic, like climate, all convey their hurtful as well as their salutary influence, from the surface to the more vital organs; and the reasoning which is here extended to them is applicable to, and illustrates the influence of temperature and of climate. These agents are taken to an extent far beyond the power of credibility, did not experience lay their increased doses before us in the form of facts. It is only the gradual and progressive use of stimuli which enables the system to resist their application in quantities so extraordinary; for were the same dose given in the first instance that is borne with ease from use, or actually necessary from habit, the consequences would be disease and death. Temperature, acting on the surface of the body like opium, and wine acting on the stomach, is capable of imparting vigour to the human frame; but when the system is exposed to its action in an unaccustomed and undue degree, disease and death will often follow. The *coup de soleil* is a proof of its instantaneous impressions conveyed from the surface to the more vital organs.

Old age creeps, as it were, from the surface to the more vital parts of the system; and he who would prolong existence comfortably, must attend to the laws as well as causes influencing this part of our structure. In man we often see externally the marks of decay, even before the body has attained complete maturity. The improved vapour-bath promises to promote longevity, as well as to alleviate many of the sufferings incidental to old age. Under such a train of reasoning, showing the dependence of animal life on external causes, and their mode of primary impression through the surfaces to the system at large, to which we believe the concurrent phenomena of animated nature give support, it will not be

unreasonable if we look for the immediate cause of many diseases on the surfaces of our bodies, and that we consequently direct our remedies to the relief of those most important modifications of animal structure. To accomplish this great purpose nothing seems more likely to be beneficial than the arrangement of baths which Mr. Cochrane has described. By these ingenious and most usefully constructed baths you can obtain vapour, and it can be maintained at any temperature you may think proper to fix on. You can apply it generally; it can be inhaled, and you can apply it topically, as the nature of the case may require. Cold can be applied generally; it can be also applied topically; and you have a rising gradation from water, influenced by the temperature of the surrounding atmosphere to that of steam at 212°. Heat applied through the medium of aqueous vapour, and acting upon the body by means of the simple and ingenious mechanism which has been adverted to, is likely, in our opinion, to produce the most salutary effects, as its application in this form divests it of its irritating influence over the system; and it becomes in its powers as it were a new substance, whether you estimate the pleasurable sensations extending themselves to the mind, or its action in changing diseased impressions. The virtues of herbs can also be extracted and applied to the surface of the body or to the lungs, or their properties can be brought to act within the circumference of a crown-piece; consequently their powers can be directed to any point demanding their use, without affecting the system generally. Independent of their effects in remedying many diseases in the form of fever, rheumatism, gout, catarrh, pleurisy, diarrhœa, dysentery, strangulated hernia, diseased joints, and almost all cutaneous diseases, we are of opinion that they will shorten convalescence, and prevent many fatal diseases. They are also likely to relieve glandular obstruction, amenorrhœa, and those pains which result from mercurial action. In that character of constitution where the determination to the mouth or intestines defeats the full action of mercury, from being exerted on the system, their effects in promoting cuticular action will be most useful. When mercurial ptyalism has actually taken place, and which sometimes proves alarming, and for the arresting of which we have no certain means, they will also prove highly beneficial. May we not expect great advantages from the vapour-bath in arresting the tendency to melancholia, hypochondriasis, hysteria, epilepsia, chorea, hemorrhois, colica, suppression and retention of urine, and the convulsive diseases of children.

In the intermittent fever may we not also reasonably suppose that the vapour, acting upon the system for some time

previous to the attack, will often prevent the accession of the paroxysm; and where it may prove inadequate to the prevention, it will certainly mitigate the severity of the fit. That character of typhus fever, accompanied with symptoms of pneumonia, and which will not bear the use of the lancet, is likely to be benefited by the vapour-bath. This remedy may also, by its powers of derivation, be useful in preventing, as well as alleviating, in the incipient stage, many of the most distressing symptoms of those afflicted with phthisis pulmonum. The cold-bath in typhus fever only operates advantageously when reaction follows its application; but by the vapour-bath we have a certain and agreeable method of promoting excitement of the vascular and nervous system, without those dangers which are known to have arisen from the application of cold in this disease.

In the West Indies they cannot, in our opinion, fail to be useful, with previous depletion, in the prevention, as well as cure of yellow fever, which, it is unnecessary to say, is highly destructive to Europeans in that climate. No admiral or general, whatever the powers of his genius or courage may be, can be extensively useful to his country, who cannot command a healthy force; and therefore an apparatus which promises to prevent disease, as well as contribute to the recovery of those afflicted with it, will no doubt meet with the most attentive consideration and encouragement from those who have it in their power to promulgate such resources. The yellow fever still continues fatal to our soldiers, our sailors, and our commercial interests; and we have daily to lament the devastation of life, and of human faculties, by that most terrible disease. The great importance of the surface as an exhaling power, which enables the system to resist the most extraordinary degrees of heat, is well known: its extended and rapid influence also through the medium of nervous organization with the brain, the lungs, the stomach, and other internal viscera, particularly entitles it to the attention of the medical man. The external impressions acting upon the varied surfaces of our body are numerous; and their influence on the system at large, whether as inducing disease or health, will depend much upon the condition of those parts of our structure first acted on. The human frame, and particularly as modified by civilized life, is very liable to derangement from all sudden transitions. The condition of the European who has lived twenty or thirty years in a cold climate, is most strikingly and most suddenly reversed in going to the West Indies. He is this day under a temperature of thirty degrees, and in twenty days more he is subjected to the influence of one where the direct and reflected rays of the sun will generally rise to 110, 120, 125, 130,

degrees. The soldier and sailor must often act exposed to the direct and reflected rays of the sun, it therefore becomes the duty of the medical man to prepare the body to sustain this great increase of temperature with as little injury as possible to their constitution; and with this view we have no hesitation in giving it as our opinion, that the vapour-bath will prove an auxiliary of great utility, and will add to the preventive means of the medical man.

An improper idea as to the relaxing effects of heat has been productive of the most mischievous consequences, whether we look to the cure or prevention of the yellow fever. Heat produces a disposition to inaction, so does a full meal, a certain extent of exercise, or of wine; but these conditions are very different from debility, or relaxation. It is providential that heat in excess, the result of climate, has this effect; for was the increase of temperature productive of an increased disposition to action, the dangers of the system would be much augmented by such a combination of two of the most powerful stimuli acting upon the body at one and the same time.

In yellow fever, where the functions of the skin are generally deranged, and perspiration obstinately locked up, the vapour-bath promises to be a most useful resource in eliciting sweat, which seldom fails when duly promoted to allay febrile irritation, and often proves the crisis of this disease. In this fever, the means which enable the physician with certainty to promote the functions of the skin by external application alone, are highly important, as the stomach is generally in a most acutely irritable state, and can neither retain food, drink, nor medicine, in the advanced stages of this disease; so that all attempts to act on the surface through the medium of that organ, are exerted in vain, and they often aggravate, rather than alleviate the sufferings of the miserable patient. The opinions of medical men are extremely at variance and contradictory on the head of yellow fever; and there is no mode of accounting for this most striking discordance of opinion but by supposing that in many instances they have made up their minds as to the nature of yellow fever before leaving England; and by thus carrying their ideas of the theory and treatment of this disease with them to the West Indies, they neglect increasing their stock of knowledge from the legitimate and true sources of information. Preconceived opinions, and particularly those which men have acted on, and avowed, are generally departed from with reluctance. This discordance of opinion is peculiarly fatal to our navy and our army, and also to commercial enterprise, and calls forcibly for public interference. A

young medical man in going to the West Indies, knows not what authority to trust. Under such circumstances, would it not be a good, a humane, and without doubt ultimately a most advantageous plan, for Government to send out one, two, or three medical men of experience, and who enjoy the confidence of public service, with no other duties attached to them but that of inquiring into the nature and treatment of the yellow fever, which is so peculiarly destructive to many of the most useful and most valuable subjects of this country?

The division of labour is the soul of action and of perspicuity; and were the exertions of a few experienced physicians directed to this point alone, instead of having their minds distracted by a diversity of occupation, I am confident that much benefit would be the result.

Coasts, harbours, and islands, are explored and surveyed, the character, the manners of the inhabitants, and the productions of the varied parts of continents and of islands, are ascertained by encouragement given to genius and industry for undertaking such labours; and certainly the restoration and protection of human health is not an object of inferior importance; and no probable means ought to be omitted, which is calculated to avert those calamities which are daily inflicted by this malady. It is my firm conviction, founded on experience and observation, that the prevention as well as cure of this disease, is capable of being carried much higher by the conjoined powers of medicine and discipline, than it at present stands.

The multifarious duties of surgeons of the navy and army, they being often obliged to perform the offices of surgeon, physician, and apothecary, obviates the powers of investigation being fully exerted. These medical men, inferior to none in professional acquirements, act on principles established by respectable authority; but the career of discovery, the detection of error to its fullest extent, both of which require time, consummate patience, and application, they cannot enter upon, from the cause adverted to, with that deliberation and perseverance which is absolutely necessary to ensure success in any intricate pursuit.

The plague is also a disease worthy of examination in a similar way; and those individuals superintending our quarantine laws would receive the most satisfactory and useful information to the state, from physicians acting in the capacity suggested.

The promotion of sweat in the treatment of the plague is of much importance; and here the vapour-bath may be highly useful, and is incomparably superior to the process recom-

mended for this purpose by Mr. Baldwin, and which has diffused itself through a great part of Europe. Besides the probable utility of the vapour-bath in the plague and yellow fever, it may also have good effects in yaws, elephantiasis, cholera, and dry belly-ach. Should these observations, hastily drawn up, but springing from motives which prompt us to cultivate and make known what we think likely to advance the happiness of our fellow-creatures, be deemed of sufficient importance to attract the notice of those who have it in their power to promote the objects they recommend being carried into effect, it certainly would be the best plan to give the physicians so employed the power of erecting the vapour-bath, and also full access to the practice of naval and military hospitals, conjoined with authority to select such cases as they might view proper for the fulfilment of the object of their mission. It is by no means intended to allow the physicians so employed to restrain or interfere with the practice of others: on the contrary, we should expect to see those worthy of being so employed, anxious to consult with others, and capable of extending their authority by the force of talent alone, and laudably exerting themselves in promoting by inquiry, as well as by the force of their own genius, our knowledge of the nature and treatment of this destructive disease. In short, let a clinical ward be established for experiment and observation in this disease, under their superintendance, at any hospital they may think proper to reside.

This trifle was written while I was preparing, and before I set off for the West Indies, in 1809; and it now derives importance in my eye, from perceiving that a train of reasoning nearly similar has been adopted by so acute and able an observer as Dr. Johnson. Opinions thus formed, and without the knowledge of each other, are favourable to the inference that such conclusions are founded in truth. These coincidences present the most pleasing reflections, by inducing us to believe, that with the aid of perseverance in the same course of investigation, the grateful prospect of rendering further benefit to the cause of suffering human nature ought not to be abandoned.

III.

Cursory Observations on Fever. By Henry Robertson, M.D. Physician Extraordinary to H. R. H. the Duke of Kent.

The unusual frequency of fever, of late, not only in these islands, but also over the continent, has naturally drawn the attention of physicians to a more particular consideration of

that disease; and it will not be disputed that our knowledge of the nature and treatment of it has been consequently much confirmed. On a subject so generally interesting, every one is naturally anxious to contribute the result of his experience. I have already stated in the Annals of Philosophy for the year 1816, the practice I found most successful in the treatment of the most frequent and severe form of the disease; the following observations are therefore more strictly theoretical than as directly influencing our treatment of febrile diseases, and are set down without any particular order or arrangement.

An opinion has been maintained by many respectable physicians, that fever, having in every type a certain course, the duty of the physician is only to mitigate the severity of the symptoms, so as to bring about a favourable termination of the disease; and moreover, that it is not in the power of the physician to interrupt the course of fever with safety to the patient. This is an opinion so fully refuted I hope by general experience, that I should hardly have considered it entitled to observation, had I not seen it recently inculcated by respectable authority. In replying to this observation, it will not be necessary to point out the power of medicine in curing intermittent fever, and of mitigating and stopping the progress of its paroxysms, as probably the observation is not meant to refer to this particular form of disease; I shall therefore limit my remarks to the phenomena of continued fever. But even in this instance I conceive the grounds upon which the above opinion is assumed to be erroneous. It scarcely needs to be remarked, that continued fever, whether it arises or not from contagion or local causes, has not the same course in different individuals, nor are the symptoms precisely the same even during the same epidemic, which must have been the case, were the inference correct, as above mentioned, regarding its treatment. I do not mean to say that every fever if left to itself would prove fatal; but certainly in the far greater proportion of fever cases that I have seen, this, I am persuaded, would have been the case, had the disease been left to Nature, or had the inert plan of merely attempting to mitigate the severity of particular symptoms been followed. In opposition to this it may be observed, that this is precisely the plan of cure inculcated by books of systems on the practice of physic. Granted: and probably to this is owing a considerable proportion of the mortality of fever patients: and I conceive my opinion of the power of medicine in fever is supported even upon the doctrine of critical days, but more especially upon the fact that the course of continued fever is frequently interrupted, and recovery takes

place, from the occurrence of certain circumstances producing a crisis of the disease. This being admitted, it will not be denied, that by a judicious application of the resources of medicine similar effects may be brought about: and this I have seen so frequently effected, that I have no doubt it often produces the favourable termination of fever. According to my notions of the theory of fever, we have till lately gone rather erroneously to work in the treatment of that disease, by directing our views rather to secondary symptoms, than by immediate applications to the organ primarily affected. Viewing as I do all causes of fever as of a stimulating nature, and directly operating upon the brain through the medium of the circulation by inspiration, I consider the affections of the stomach and other viscera, and even inflammation of the brain itself, as secondary symptoms, the consequences of the original impression on the encephalon, propagated by sympathy to these organs. In every case of fever I have seen, the brain has been the organ first affected, either manifested by headach, a heaviness of countenance, slight stupor, or vertigo: indeed I have found vertigo in a greater or less degree present in every instance of this disease, and generally occurring some hours previous to any other symptom. Again, I have treated cases where there were evident marks of an affection of the brain, yet there was no headach, nor even suffusion of the eyes. Now, suppose that during an epidemic of great severity, whose course is from seven to twelve days, a person on finding himself taken ill, and where there exist symptoms of a severe affection, calls his physician, who, by a judicious application of remedies, cuts short the disease, and restores his patient to health in the period of three, four, or five days; are we not to conclude that this has been done by directly interrupting the course of the disorder, than as merely the effect of mitigating its symptoms? an opinion I look upon as better adapted to the doctrine of fatalism, than fit to be broached in this country. I do not see the necessity of extending this question to great length, otherwise I could adduce instances, where, even in the last stages of fever, by the interposition of medical means, a favourable crisis has been brought about. Such cases I dare say will occur to every one. Indeed, a contrary opinion seems to me particularly degrading to our profession and its professors.

I have enumerated inflammation of the encephalon among the secondary symptoms; and as the theory of fever has been recently attempted to be explained on this symptom, I shall briefly put down my reasons for dissenting from this opinion.

My practice of late years has been chiefly with patients where I had commonly an opportunity of seeing them within twenty-four hours after being attacked. Delirium is the universal concomitant of inflammation of the brain; and by turning to my paper in the Repository for February last, it will be perceived that in a disease of uncommon malignity only one patient was received into the hospital with delirium, and that man was admitted on the fifth or sixth day of his illness: delirium and other symptoms of inflamed encephalon are consequences of the protracted stages of fever, and always subsequent to the distinct formation of the disease: but even the occurrence of delirium on the commencement of fever is no proof of an inflammation of the brain; although I have never met with an instance where this disease has appeared without delirium. It is, however, well known that delirium frequently originates where no inflammatory affection of the brain takes place, as from the inhalation of certain gases, in which may be included contagion and miasma; and by eating certain poisonous matters. It is also to be observed, that the occurrence of inflammation of the encephalon in fever leads frequently to the recovery of the patient, even where there exist symptoms of the greatest general debility; a circumstance I cannot readily reconcile to the idea that the inflammation of the brain is the proximate cause of the disease. I admit that the causes of fever do effect an impression upon the brain more intense, and consequently more permanent, than what is caused by the operation of matters of a similar nature, as wine, narcotics, and certain gases; as, were it otherwise, the impression from causes of fever would be equally transitory as that which is produced by the matters I have stated. It is the intensity of this impression, varying from the slight attack that produces ephemeral fever, to that causing a sudden suspension of the powers of life, that occasions in every case a greater or less determination of blood towards the organ primarily affected; frequently followed by an inflammation of it. Were this not the case, we should find that fever was distinctly constituted by every case of inflammation of the brain, from whatever cause this might arise: now, we know this is by no means the case; and that the symptomatic fever of inflammations is very different in type, and requires a different mode of treatment from the pure idiopathic fever, the proximate cause of which I am now speaking of. It is by this difference, I imagine, we can explain the reason why the more violent impression of an inflamed brain always supersedes the symptoms of idiopathic fever when it supervenes upon that disease; and why, on its disappearance,

convalescence uniformly follows, when it does not lead to a fatal termination. The distinction I have endeavoured to establish between primary symptoms of fever and those of a secondary order, originating as the consequence of the first, I have found of essential advantage in guiding us to a successful treatment of this disease. By fastening our indications upon the second order of symptoms, we very frequently increase the perturbation of the system, and even in the most favourable circumstances pave the way for a protracted disease. It is in this way the pernicious effects of remedies applied directly to relieve the visceral affections are explained, when exhibited as a preliminary in the treatment of fever: and by this also we comprehend how that the operation of whatever immediately relieves the cerebral functions has an equally favourable operation on the secondary symptoms. Even the distinction between the immediate impression of the remote causes of fever upon the brain, and inflammation of that organ as a consequence of the former, is necessary to be kept in view. In the latter circumstances, blood-letting is not only required to a greater extent, but can be better sustained by the system, than when employed for the relief of the cerebral functions before inflammation of that organ has supervened; although in that case also venesection to a certain degree is no less urgently required. Upon the view I have taken of the proximate cause of fever as depending upon an excitement of the cerebral functions, of course I consider what I have had amply confirmed by experience, that all matters possessed of stimulant powers are decidedly pernicious in the incipient, nay, in every stage of fever; and that a directly opposite practice is necessary during its course. Moreover, I imagine the same observation would be still more applicable, were fever depending on inflammation of the brain: and I certainly do consider the continued administration of mercury in cases of fever, under any circumstances, whether subsequent or not to blood-letting, as recommended upon a very mistaken idea of its effects. How a medicine of such highly stimulant powers, and so permanent in its effects as such, ever came into general practice for the cure of a disease evidently depending upon an excited condition of the functions, is to me inexplicable. In my paper above mentioned in the Annals of Philosophy, I have given a sufficient statement of my experience of the effects of calomel in fevers; and which is not only decidedly against its utility, but bears very strong testimony of its pernicious effects in that class of diseases: and I feel highly gratified to see this supported by the opinion of one of the most experienced

Physicians of the present day, and who is super-eminently qualified to decide this question; I mean my learned friend Dr. Robert Jackson; to whose respectable authority I might add the name of Dr. Burnet and others. I have sometimes thought a great deal of the contradictory practice in the cure of continued fevers has originated from the manner they are classed in genera: it has, therefore, occurred to me, that much of this perplexity would be obviated were we to restrict the term typhus to the genera of fevers depending upon contagion only; and synocha, in order to distinguish those fevers originating from any other cause.

All fevers originating from contagion have their increase, acmé, decline, and disappearance. This is particularly remarkable in plague; and if attended to, would serve to moderate the vanity of those who think they have introduced a more effectual mode of extinguishing that disease, by what they term measures of police, in place of intrusting the treatment and extirpation of it to the sole direction of professional men. But although the increase and gradual disappearance of febrile disease is most conspicuous in plague, I have seen the same thing occur in epidemic small-pox and typhus fever: the other causes of fever commonly depend upon local circumstances, upon which the temperature of the atmosphere has a very great power, and the diseases produced by their impression seem to undergo a variation similar to the others; but which I apprehend will be perceived in most instances to depend on the diminished power of the remote causes themselves, rather than a diminished susceptibility in the systems of persons exposed to them, as in the cases of contagion. I have already stated, that I consider the remote causes of fever find admission into the system through the process of inspiration. This is a point of essential consequence to be investigated, and I have accordingly entered pretty fully into it in an Essay on Epidemical Diseases in my work on the Atmosphere; and I merely allude to it in this place, having seen it stated in a quarter, with the opinion from which I commonly coincide, that the contagion of plague seems to be communicated by contact only: and in proof of this idea, the notions of the people in eastern countries where plague is most common is adduced: but as I never yet have seen a well-authenticated instance where the skin in a sound state performs an absorbent function, I therefore do not perceive how contagion can operate in any other manner than through the medium of the lungs. Contagion being propagated either by the direct emanation of it from a diseased person to one in health, or through the medium of sub-

stances that have imbibed this matter as it exhales from the diseased body; it is therefore very natural for strangers who mix with the inhabitants of eastern countries to avoid coming into contact with them, especially during the prevalence of pestilence in any particular place, as the materials of which their dress is composed were found to be the most frequent source of plague, which is very greatly increased by certain religious prejudices, and the long-continued wear of the same dress. We have instances given us in Mr. Jackson's History of Morocco, where that gentleman has sat at table with people labouring under symptoms of plague, and even visited the chambers of the dying of that malady; but he very carefully kept to the windward of his friends in such cases. I have also known instances of medical gentlemen under the same precaution having approached the bed-side of those sick of the plague, and felt the pulse, without taking the infection. But as every soft and porous substance is more or less adapted to become a focus, by imbibing contagion, it is but a prudent precaution to avoid communicating through the intervention of any substance that may act as such; not from the dread that a table-cloth used in a party where one is contaminated would, through contact, communicate its baneful effects to those that are in health; but lest, by any casual agitation, the contagion it may have imbibed might be set free, and operate through the medium of inspiration. It is upon the same principle I consider the propriety of guarding against coming into contact with people in walking the streets, particularly in cities of the east, where the contagion is so much more apt to be liberated by brushing against the loose fur robes of the natives, and of being immediately inhaled or imbibed in the dress of the passenger, which may again manifest its effects on some future occasion. In proof of my opinion, I may adduce the fact, that none of the gentlemen of the medical staff employed in the plague hospital at Malta under Mr. Green, died on their duty, although they freely communicated with the sick, without any other precaution than that of carrying to the patient's bed-side, at their visits, a small fumigating lamp, and using friction with oil. It has been supposed that this last practice is nearly a proof that contagion produces its effects through the medium of the skin; while for the reason I shall briefly state, I have always considered it tending to confirm the opinion I have embraced on this point. People employed in matters that by evaporation produce a change in the atmosphere, as water carriers, dealers in oil, and such like, have been remarked to be less liable to the plague than others. Now olive and other oils

that are denominated fixed oils, from their want of volatility, compared with essential oils, are, however, not to be considered as entirely divested of volatility: that this is not the case is evident from the peculiar smell that arises from an open vessel containing oil, and the gradual diminution of its quantity. Fixed oil, besides, is a fluid that suffers an important and immediate change when exposed to the air, by decomposing it. I therefore imagine that the advantage from frictions with oil, as an antiloimic, arises in consequence of the artificial atmosphere that by its vapour is formed round the person using it, whereby it operates by decomposing the contagious matter he may be occasionally exposed to. Indeed there are so many well authenticated instances of sudden suffocation from incautiously inspiring pestilential vapour, which establish the opinion I have adopted of the manner how contagion gets into the system, that I consider it unnecessary to press the subject farther. Luckily the atmosphere most powerfully operates in destroying the power of contagion; and in the high temperature of the climate, where pestilence most frequently breaks out, from instances that have come within my knowledge, I am inclined to believe that its virulence ceases at a much shorter distance from its source than what has been hitherto ascertained. It is the doctrine of fatalism, and the long continued use of the same garments, that renders its contagion so much more terrible in Mahometan countries than among people of different habits and opinions even living under similar circumstances of climate: indeed want of attention to cleanliness renders every variety of contagion a hundred-fold more active than it otherwise would be, in every situation. I am decidedly of opinion, therefore, that particularly since the visitation of plague has been so much rarer in Europe, an unnecessary degree of terror has been entertained of the violence and almost irresistible power of pestilential contagion; an opinion that seems gradually to encroach upon our understandings, and to such a degree that medical men have in the present times almost entirely resigned the management of the disease into the hands of the civil power, and considered it as incurable; forgetful of the meritorious examples of our predecessors, who boldly on emergency made every personal sacrifice of convenience and safety in their exertions for the public good. I do not mean to deny that the civil authority is unnecessary in such circumstances; on the contrary, it is of the most essential advantage in its co-operation with the professional management of the disease; but on every such occasion to be of utility it must be subservient in all its acts to the dictates of

the physician, who ought not to be placed under any restraint, but every thing possible done to keep his mind at ease. Probably the distance at which contagion is active is more extended in those climates than where the medium temperature of the air is higher; that therefore the contagion of typhus, (which I still think is now much more seldom met with than formerly, notwithstanding the general appellation given to the prevailing fever at present,) is active at a greater distance from its source in these countries, than the contagion of plague emanating from a person sick of the disease; for instance, in Syria: and I am also of opinion, that owing to the more damp and heavy atmosphere of northern climates, the contagion of plague probably becomes active at a greater distance from its source, in proportion as we recede from the tropics. One inference of utility may be deduced from what I have premised on the mode contagion gets admission into the blood; which is, for those going about the sick to adopt mufflers, as originally suggested by Mr. Boyle and Dr. Hales: a contrivance of this sort may easily be adapted to cover the mouth and nostrils, giving sufficient room for breathing and speech, by placing a piece of sponge, of about one inch thick, between two pieces of fine linen, and sewed upon a piece of silver wire, having holes drilled through it, and made so as to fit closely, going over the nose, and coming below the chin, with a transverse projection of wire from the part that goes over the nose to that under the chin, to keep the sponge sufficiently raised: it may be fastened by tying it over the ears, or fixed with springs as spectacles, and when used be kept moist with water, vinegar and water, or any other inoffensive liquid.

AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

LXVI. — *Extraordinary Case of Pulmonary and Abdominal Affection, with an Examination post mortem.*

Mr. D., of Weston Street, Pentonville, died on the 8th of the present month. He had been for a long time the subject of complaints, which were severe, and somewhat anomalous. One principal and prominent feature of his disorder was an extremely laborious respiration, which occurred in paroxysms, with irregular intervals, and was attended with a particular kind of noise, so loud occasionally that it might have been heard at a very considerable distance. In these respirations the diaphragmatic action especially appeared to be performed with much obstruction and difficulty, and the

patient instinctively applied both his hands to the abdomen, as if to procure ease by pressure and support. His habits were irregular and careless. He was unmindful of exposure to wet and cold, although cautioned by his medical attendants against subjecting himself to vicissitudes of temperature. Medicines of various kinds were tried without even temporary relief. Latterly he had been in a great measure free from these attacks, and the principal complaint which he made for some time previous to his death, was a violent pain in the right iliac region. His bowels were throughout free from any considerable obstruction.

The body was opened on the day following the death, by Mr. Taunton, in the presence of Dr. Uwins and Mr. Wakefield. Its external appearance presented nothing remarkable, excepting a slight abdominal fulness indicating effusion: such effusion was found in the cavity of the abdomen, of rather a pale colour, and to the amount of about three quarts. There was a small omental hernia through the umbilicus, with adhesion, but no appearance of strangulation. The whole line of the intestinal canal was free from any marks of disease; there was an incipient inguinal hernia on the right, and tendency to it on the left side. The peritoneum was without any indices of having been inflamed. The liver was in every part of its substance of a granulated studded appearance, and some slight points of ulceration were detected upon minutely examining it. The gall bladder was completely plugged up by one large calculus, so that no bile could have been lodged in it for some time: the duct was, however, pervious. The pancreas was throughout of a soft spongy texture, anasarcous, rather larger than natural, and easily torn by handling. The spleen did not exhibit any thing at all uncommon. Perhaps it may be said that there was a little more than its ordinary measure of vascularity observable. On the outer margin of the left kidney there was an hydatid. Both these glands were otherwise sound and healthy. The ureter and urinary bladder were free from any disordered indications.

On examining the cavity of the chest, the first thing to which attention was called was the firm inflammatory adhesion between the pleura and thoracic surface of the diaphragm, large layers of coagulable lymph having been thrown out and become organized along its whole line: in the cavity of the chest was likewise found effusion; but it was, comparatively with the abdomen, small in quantity, and much more coloured. The lungs generally were not much diseased; they appeared, however, rather of a softer texture than natural, and the upper and back portion of the right lobe was adherent to

the pleura, and was to some little depth knotty and hard in its parenchyma. The pericardial portion of the pleura was inflamed and adherent, but the internal surface of this membrane was remarkably healthy in its appearance. The heart was sound; no other marks of disease either in the organs or great blood vessels being discernible, than small points of ossification at the semilunar valves, and a slight thickening of the coats of the coronary artery.

The disordered respiration, the pain in the right iliac region, and the quantity and quality of abdominal effusion, seem the principal points to which the attention of the pathologist would be called in reflecting upon the peculiarities of the case before us.

The first of these symptoms received a satisfactory explanation in the appearances on dissection; and that the inconvenience in a very great measure ceased some time before death was doubtless owing to the inflammatory action having declined after the adhesive process between the pleura and diaphragm had become complete. The subsequent pain in the iliac region, (which was at times exceedingly urgent,) it does not seem so easy to account for: the whole of the abdominal region and viscera, excepting the liver and pancreas, being, as it has been observed, without any traces of disease. Had it any connexion with the spinal chord, at or near this part? The effusion, too, is certainly of difficult explanation, if we admit the prevailing theory, that dropsical deposit must necessarily be preceded by inflammatory action. What, were the vessels inflamed which poured out this fluid into the abdominal cavity? And would not an inflammation sufficient to have occasioned such excretion, been evident upon an inspection of parts?

LXVII. — *Case of Rupture of the Lateral Sinuses of the Brain.*

A WOMAN, aged eighteen, in the neighbourhood of Chick Lane, quarrelled with some of her neighbours while in a state of intoxication, and was thrown down with violence. By the fall her head was struck on the right side. This occurred on Saturday evening. On Sunday, at three o'clock, she was seized with apoplexy, and soon died. Upon opening the head, about an ounce and a half of effusion of blood was found upon the right hemisphere of the brain: but the remarkable particularity observed, (and on account of which the case is recorded,) was *a complete rupture of both the lateral sinuses;* these vessels being torn through on both sides at about the same point. Was this effect produced by the fall?

or did it occur subsequently when the apoplectic seizure took place? Is it not a very extraordinary sequel to occurrences of a like nature? and, supposing it to have immediately resulted from the accident, how can we explain the interval between the blow upon the head, and the attack of apoplexy?

LXVIII. — *Case of Ephemeral Fever, with Eruption.*

The patient, a young man, was seized with an uncomfortable sensation of heat, without any assignable cause, which continued on the increase for about half an hour, when an appearance of urticaria presented itself in large wheals all over the body, but most remarkably about the head and neck, which are not usually attacked by the nettle-rash. The face was so swoln, that scarcely a feature was distinguishable; and the lips, nose, and eyelids, having a double skin, and being thin, prevented his seeing or speaking distinctly. This was accompanied with a sensation of suffocation, and constriction in the trachea, which he endeavoured to relieve by coughing. The circulation was at the same time so accelerated, that the pulse mounted up from its natural state to above a hundred and sixty; the action of the heart being so violent as to be almost audible, and causing an evident pulsation in the smaller arteries, such as those of the fingers, which beat more perceptibly than the radial artery of many persons.

This state of fever and irritation continued for the space of another half hour, when it gradually subsided, leaving the pulse nearly of the ordinary quickness, and the thickening of the integuments entirely gone down, at the end of about two or three hours from the first attack.

Here the suddenness of the seizure, and its equal quickness of departure, the violent irritation, and the immediate accession of fever, indicated by the rapid rise of the pulse, or, in the language of Cullen, the extraordinary efforts of nature to restore the action of the extreme vessels, and overcome the spasm affecting them, are truly remarkable, being so different from the usual course of urticaria and fever.

Though the immediate cause of the rash was most probably checked perspiration from cold, the primary cause was no doubt "certain acrimonious matter being applied to the inner coat of the stomach and intestines," as the usual symptoms of deranged biliary secretion preceded the attack. This has happened twice before to the same individual; the first time about three months ago. No remedies were made use of at the time, and he only took some alterative medicine afterwards.

GENERAL REVIEW

OF

MEDICAL AND COLLATERAL SCIENCE,

FOR THE

YEAR 1818:

COMPREHENDING, FOR THE PRESENT MONTH,

PART II.—ANALYTICAL REVIEW.

PART III.—SELECTIONS.

PART IV.—FOREIGN MEDICAL SCIENCE AND LITERATURE.

Ἀσκεῖν περὶ τὰ νοσήματα δύο· ὠφελέειν, ἢ μὴ βλάπτειν.—HIPPOCR.

IT has been asserted, that between a good Physician and none at all, the difference is not nearly so wide as between the former and a bad one; and it has been further made a question, Whether the physical evils of mankind would not have been less, had the world from the commencement of time known nothing of medicinal interference? But let us admit these assumptions and these surmises in all their latitude, and it will not even thence follow that the cultivation of medicine as a science, and practice of physic as an art, are ignoble or superfluous employments and pursuits. Such is the constitution of our nature, that promises of relielf from present suffering cannot fail of ever being listened to with eager desire to avail ourselves of the proffered good. "*Medicina*, (says Celsus,) *nunquam non est*;" and indeed it is the veriest of all cants, to conceive and talk of a state of society exempt from the interposition of remedial resources*. Let those, however, who devote their time and talents to the acquisition of that knowledge, the great aim and end of which is to sub-

* And yet there are not wanting men who profess to consider the exertions of medicine as not only unavailable, but absurd. A sermon was but a few days since delivered before a large audience, in the neighbourhood of London, the burden of which was the *in toto* condemnation of physic and physicians.

tract from the sum of pain and suffering, be careful of giving occasion to the oppugners of our art for severity of animadversion. Let them ever be solicitous to preserve in their recollection, the precept taught by our present motto. Let them avoid with diligent attention the *nocere*, while they are in search of the *juvare*. In a word, let them be as anxious to leave undone what they ought not to do, as to do what ought to be done.

These hints we have ventured to drop on the threshold as we pass on to explore the regions that now invite our research; and we shall still further hazard one or two preliminary remarks in reference to what appears to us to be the state of medicine at the present time. In the first place, then, we feel a pride and pleasure in being able to express it as our sincere conviction, that the progress and improvement in the art of healing diseases has been quite as commensurate with other branches of intellectual pursuit as is consistent with its nature and objects. To charge upon medicine the persistence of irremediable maladies, is to misconceive both its design and pretensions: it is to suppose that organized and inorganic matter are governed by the same laws; to presume that we can cure disease by interposing its opposite, as a chemist forms a *tertium quid* by the combination of an acid and an alkali. Such is not the *modus operandi* of remedial agency. Our operations are almost entirely limited to the control or regulation of action. Over structure, substance, composition, we are comparatively without influence*. No infusion of sanative balsams will convert a debile into a robust frame; nor is it within the compass of medicinal chemistry to reproduce lost organization. While luxury gradually undermines, and time and dissipation more obviously destroy, it is in vain that medicine multiplies its resources, if its aim be that of reversing the laws of Nature. All that we can do, or properly pretend to effect, is to meet the increasing exigencies of the case; and, as it were, to keep at bay the physical and moral antagonists of our species.

There is a class of objectors to the claims of medicine, who, while they decry the exertions of the Physician, will affect at the same time to extol the art of the Surgeon as a more demonstrative and unequivocal good†; and to the positive argu-

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* It will be perceived that we have expressed these principles with qualification and reserve, since there are some remedies which operate almost entirely by virtue of chemical impulse. The number of these is however confessedly small.

† The discourse to which we have above alluded was delivered in behalf of a *surgical* institution—the City of London Truss Society.

ments in favour of the importance of surgery, none would be more ready than ourselves to allow every consideration: but when these kind of comparative estimates are instituted between the one and the other branch of the healing art, it may be permitted us to say, that were the diminution of the number of maladies calling for surgical assistance to be taken as the measure of the advancement of surgery, such men as Cooper and Abernethy, and Bell and Richerand, must have lived in vain. Again, who would desire to see the obstetric art deprived of those aids that are afforded to it by the enlightened labours of such men as Denman and Davis, and Merriman and Newnham? and yet it is an undeniable fact, that casualties among females have been much greater in number since midwifery has been more generally in the hands of male Practitioners. That this is ascribable, at least in part, to that greater disposition to interfere with nature, which the habits of modern times have necessarily engendered, cannot perhaps be denied; and then we are also to take into account the multiplication of incompetent pretenders: but still we maintain that it would be quite as just, from the premises before us, to accuse surgery and midwifery of not making good their claims to public approbation, as to institute an accusation against the improvement of medicine, on the ground of the continuance of incurable maladies.

Setting out then with these positions, as in our minds satisfactorily established, viz. 1st, That medicine must exist; and, 2dly, That each department of the science of healing is in a state of decided improvement; we would further venture to express our sentiments on one or two particulars, in relation especially to the theory and practice of medicine, more properly so called, before proceeding to the immediate object of the present paper. And in the first place we would suggest, whether the tide of opposition to the doctrine of excitants may not, in the present day, have set in rather too forcibly. Some twenty or thirty years since the error was most decidedly in the opposite extreme: all ideas of local irritation and organic disturbance seemed at one time to be merged in attention to radical conditions and general requisites; but now, as if to make up for the time mispent while acting under these erroneous conceits, it does, we confess, appear to us that the converse doctrine is too readily conceived and too universally applied. One of the ablest and most accredited writers of the present day*, has even denounced the notion

* Dr. Armstrong. See his very excellent work on Scarlatina, Measles, and Pulmonary Consumption, which has been much enlarged by a second edition since our review of it in the May Number of the Repository.

of tonic agency in medicinal powers; and the general complexion of modern works, both in pathology and practice, is strongly in favour of his assumptions; assumptions which we think unwarrantable in their nature, and injurious in their practical bearings. So far are we from desiring to witness a restoration of the stimulant creed as a directory to medical practice, that we feel assured the extreme of the present day is the one least to be lamented: but still we apprehend it is an extreme, and that a little more confidence in the efficacy of restoratives, beyond those of undoing and unloosing, would be a salutary ingredient in our pathological and practical principia. Convinced are we that in many instances the establishment of even local and irritative disorder may be obviated by the seasonable and careful interposition of exciting and strengthening medicinals. Attributing every deviation from health to vascular irritation, and foregoing altogether the notion of the neuralgia as an order of disease, are feelings and views likewise originating from the same source; and in our minds to be deprecated in the same measure. Here the practical indications, arising out of the assumed principles, seem in their extent to bear more towards the positive error alluded to in our motto. If nothing be in fault but overladen blood-vessels and an overplus of energy in the arterial system, the inference is obvious; and is, we are fearful, too largely admitted, that vascular depletion is not only the main pivot upon which all our conceptions of remedial agency must turn, but that there scarcely need be any limit to the freedom of depleting processes. Here again let us caution the reader against mistaking our condemnation of that extravagant length to which the principle is occasionally carried, for a disinclination to the principle itself. We have most unquestionably gained a good deal in point of precision over our immediate predecessors in pathology, by appreciating to a greater extent than they did the kinds and degrees of vascular impetus as explicative of morbid states: but let us recollect that there are governing and radical impulses in the frame, and that while we are looking into the blood-vessels for the explication of every thing, it is possible that we might gain more correct notions by carrying our regards a little higher. A third error of the present-day theory and practice seems to consist in our tendency to simplify remedial resources beyond the warranty of nature and truth. In this, indeed, we follow our predecessors of the stimulating school: Brunonian excitation and blue pill practice are both amenable to the same charge of unwarrantable simplification. Organic favouritism, so to say, is the last particular to which we shall advert, as rather too characteristic of the day. There must,

in the minds of many Pathologists and Practitioners, be a Lord of the ascendant, something upon which to hang the explanation of all morbid states. Thus the liver, the brain, and the primæ viæ, are severally laid under requisition for this purpose; and no deviation from the straight line of health can at any time occur without having an especial, and original, and exclusive reference to hepatic, encephalic, or intestinal irritation.

It was our intention to have enlarged these hints into something more like a body of evidence against modern extravagancies: but since the commencement of our labours as critical reviewers, so many occasions have fallen before us of expressing pretty fully our sentiments and opinions on the passing doctrines, that a more full development of our feelings in this place would but prove a repetition of what has already been advanced: and much more important matter lies before us than could be furnished by any reflections of our own. To the more proper concern of the present undertaking we are then to hasten, and we shall merely, in conclusion, again repeat our conviction, that both the theory and practice of medicine stand upon a better footing now than they ever did at any former period: an eclectic and inquisitive spirit pervades our researches into the laws of life; *verba magistri* authority is not valued beyond its deservings; and, compared to what was formerly the case, a full and free exercise is allowed to the reasoning and reflective faculties.

In casting a retrospective view upon the principal circumstances which have occupied the attention of the medical world since the commencement of the year, we find the prominent points of interest to have been, first, the prevailing epidemic fever; secondly, the question of vaccine security against the variolous infection; and, thirdly, the nature and treatment of syphilis and syphiloid, or pseudo-syphilitic affections. On these topics, then, it may not be out of place to introduce a few remarks, as preliminary to a more particular notice of the principal works that the closing year has produced.

First then of Fever. There still prevails a decided difference of sentiment in respect of the precise origin and real nature of the distempers by which both this country and the continent have been recently visited, under the denomination of fever. Is typhus an affection *sui generis?* and does it acknowledge any other source than contagion or infection? These are questions which still remain under dispute, notwithstanding the abundance of opportunity which has lately been furnished us for detecting the peculiarities of fever. By

some it is conceived that such an undue exposure to the vicissitudes of temperature as shall be equal to the production of febrile derangement, will, under certain circumstances of the frame, be sufficient to engender that particular form of distemper which we name typhus; and that the malady thus originating will communicate itself to another as a contagious disease. Others again imagine that fever, to whatever extent it may be carried, as the produce of the undue operation of cold and heat, will ever want that characteristic something which belongs exclusively to contagious distempers. These last theorists urge; were the converse of the proposition true, that heat or cold unduly applied is capable of exciting a communicable distemper, families and societies would be scarcely ever without the visitation; and so again in regard to famine, or filth, or confined air, or mental depression. Did these enemies, it is said, to health and comfort possess the faculty *per se* of engendering contagion, contagion must almost always exist in the confined and unventilated avenues and apartments of a crowded and manufacturing city. All the facts of the case it is maintained, taken together, would appear to favour the inference, that when fevers become general there is a something in the air of a noxious kind which imparts a certain specific cast and character to those morbid derangements which occur as a consequence of ordinary sources of disease; and that the complexion of the reigning malady has thus a direct reference to the something around and about us, which is no otherwise traceable than in these its effects. There are many facts, on the other hand, inconsistent with this supposition; such as the breaking out of fever in several parts of the continent of Europe among societies of paupers, compelled to herd together in wretchedness and want from the circumstances of the times: such again as the occasional occurrence of a contagious disorder from the confinement of animal effluvia; and such as the alleged transportation of infectious maladies from one to another region of the globe. Still then it remains to be proved whether typhus fever is specific as to its exciting source, and peculiar as to its species; and we should, as we have already hinted, expected to have seen a work* devoted professedly to its elucidation, enter more fully upon the discussion of these interesting and disputed points.

On the precise nature and seat of fever we have already had occasion to express our sentiments†: to this particular

* Dr. Bateman on the Contagious Fever of this Country; reviewed in the Repository, Vol. X. page 311.

† See our review of Armstrong, Vol. IX. page 375; and Wilson on Morbid Sympathies, Vol. X. page 395.

then it will be unnecessary again to advert, and we shall content ourselves on the present occasion with saying, that the mode of treatment does not appear to be yet settled by unanimous consent; some contending for the necessity of large and repeated depletions in the early stages, in order to prevent the complete establishment of the disorder; others again confining themselves principally to the administration of brisk purgatives, with only the occasional employment of either the lancet or topical abstractions of blood, according to the accidental urgency of prevailing symptoms. An ingenious author* has published a treatise, the purport of which is to show, that in the long run it proves of little consequence which principle guides the practitioner in his aim to subdue febrile action; and although we should hesitate to go with him to the full length of his sceptical inferences, we must confess that we have seen the disease yield early in some cases, and become protracted in others, under every mode of treatment which has been adopted by different practitioners. We repeat, however, what we have formerly urged as a rule of practice of unequivocal importance, that when detractions of blood are had recourse to, it must be in the early stages of the malady; and in a conversation which we had some few days since with Dr. Armstrong on this head, we found him equally positive on the point of danger attendant upon large bloodlettings in the latter, as convinced of their propriety in the early stages of fever†. On the head of treatment of fever we shall here content ourselves with just further stating, that the muriatic acid, or equal parts of this and the nitric acid, has come among some practitioners into pretty general use, as a remedy especially applicable to the confirmed and protracted state of the disorder. It will give authority to this practice to state, that Dr. A., in the conversation to which we have just alluded, informed us of his having witnessed conspicuously good effects from the employment of this medicine. The dose employed is about fifteen minims to an ounce and a half of water‡, and this repeated four or five times in the course of the four-and-twenty hours.

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* Dr. William Brown. This book is entitled, An Attempt to estimate the Power of Medicine in controlling Fever.

† Dr. A. has himself been attacked with fever, and lost between fifty and sixty ounces of blood in a very short space of time.

‡ The principal treatises on the epidemic fever of the present year have been Dr. Bateman's and Brown's already alluded to, with Dr. Millar's on the Epidemic of Glasgow. Dr. Graham's on the same. Dr. Yule's on the Fever in Edinburgh. Mr. Bonnar's on that which prevailed in Auchtermuchty, and neighbourhood. Dr. Duncan's Reports of Practice in the Clinical Wards of the Edinburgh Infirmary, and some papers in the Transactions of the Irish College.

On the subject of lues venerea our readers are aware that a still greater discordance of opinion prevails among medical men, than on the head of febrile affections. It was reserved for the sagacity of John Hunter to discover, that under the sweeping denomination of the venereal disease, practitioners were in the habit of confounding affections which are distinct from the true lues, both in their nature, and often in their origin; and the spark thus kindled by one individual, has at length burst forth into a flame of opposition against the more commonly received tenets on the topic of venereal affection. Adams and Abernethy, Pearson and Carmichael, have pursued the path first pointed out by Hunter, and their labours have proved signally successful in this very important department of medical surgery. But here, as in other matters, we have certainly carried things too far: from one extreme of regarding every ulcer on the genitals, every blotch in the body, and every pain in the bones, as of venereal origin, and only to be cured by salivation, we are now some of us running to the other, of foregoing the employment of mercury altogether, and even of doubting whether any such specific disease as the lues venerea ever had existence. We fear with some of our more moderate brethren in the profession, that the new plan of treatment of syphilis without mercury is about being carried to a dangerous excess; and it is with much pleasure we saw, in a contemporary journal*, sentiments of a similar kind expressed, and a translated essay introduced on the necessity of an accurate distinction being made, both in theory and practice, between actual and pseudo syphilis. As the distinction is in our minds of very considerable moment, and as the paper alluded to is drawn up by one whose opportunities of observation, and nicety of discernment, are both unquestionable, we shall take the liberty of presenting our readers on the present occasion with some extracts from it:—

"Among ourselves, (says Dr. Burder, who was for some time house-surgeon to the Lock Hospital,) notwithstanding the manifold and Protean forms of pseudo syphilitic diseases that are daily remarked, it is quite clear that syphilis itself has not lost any ground. Its presence is at this day distinguished by the very same pathognomic marks that are handed down to us by the oldest authors who have seen and recorded the disease. *We still see the hollow, sloughing, cineritious surface, the hardened edge and base of the ulcer;* and these marks have remained unchanged, since the poison was first introduced into Europe. *The disease, moreover, is still known to yield to mercury alone.* It seems therefore probable, that syphilis itself still retains its pristine nature and form; and that the syphiloid diseases, described

* The Medico-Chirurgical Journal, or Quarterly Register, by James Johnson, Esq. Page 1 of the July Number.

in modern times, either arise from some new morbid poisons, *or are the same which attacked the human race before syphilis was known* ;* but which for a long time were not distinguished from the effects of the syphilitic virus. If, indeed, we could prove that new poisons are generated, still we must expect to see again, and again, those same forms of disease attack the organs of generation which were described so many years ago. We cannot prove that these have been annihilated. However this may be, we are greatly embarrassed by the questionable and multiform shapes which these diseases assume."

The following further extract we must make room for, as descriptive of the distinction between syphilis and pseudo syphilis : —

" 1. A certain unpleasant sensation accompanies and follows the breaking out of a chancre ; and this increases more or less through every stage of it ; even during the administration of mercury. Syphiloid ulcers, on the contrary, have often arrived at a considerable size before they have become troublesome. In a few instances, however, they become suddenly and violently painful ; but not in general without some preceding uneasiness. 2. A chancre generally begins like a pustule or vesicle, which becomes a small whitish or grey ulcer. But syphiloid sores, though they are sometimes pustular at the commencement, generally put on the appearance of an excoriation or trifling ulceration. 3. A chancre proceeds slowly, and regularly, preserving more or less exactly an oval or circular shape, and *spreading evenly on all sides.* But a syphiloid ulcer is generally irregular in its progress ; it either gives no trouble at all, or spreads rapidly. *It often spreads in one place, while it heals in another.* Sometimes it shows a tendency to heal, and the next day to spread. 4. A chancre has generally a foul, ash-coloured, hollow surface, (except when seated in the common integuments,) with a thin slough, *or thick pus, tenaciously adhering to the centre,* which is without granulations. A syphiloid ulcer, on the other hand, seldom shows a surface so evenly hollowed out ; it is more irregular, *superficial,* and granulations are often detected in some part of it. 5. A chancre may be particularly distinguished by its hard base, which extends beyond the ulcer ; is circumscribed, and often deep seated. But in the syphiloid ulcer there is either no hardness at all, or it is only slight and diffused, not circumscribed. 6. At a very early period in chancre, its projecting, round, and callous edges are distinguishable. In pseudo syphilis the edges are generally flat, thin, and more or less ragged : sometimes, however, they are round and callous ; but this is only observed when the ulcer becomes chronic and languid, disappearing by the use of stimulants. 7. Lastly : A chancre on the body of

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* The minute descriptions which Celsus gives of genital diseases, and on which so much has been said, do not correspond with the characters which attach themselves to the genuine venereal ulcer ; and as the accuracy of this author is unquestionable, the very fair inference has been, that the true lues venerea was never known by him.—Edit.

the penis, and which is not yet influenced by mercury, sometimes wears a livid hue, which in a few days changes to dark brown. Nothing of this kind appears in syphiloid ulcers. The time, too, that elapses before the chancre appears after infection, varies less; for it seldom shows itself before the fourth, or after the sixteenth day: Whereas the syphiloid ulceration often appears in twenty or thirty hours after sexual intercourse; and sometimes not for weeks."

We are sorry that our limits preclude the possibility of pursuing the author's description of both primary and secondary syphiloid diseases, and their distinction from true syphilis. We earnestly, however, recommend to the young surgeon a perusal of the whole essay, which is throughout marked by the indications of great acumen, extensive experience, and an earnest desire, without any attachment to preconceived notions, to get at the truth of the case.

With respect to the history of true syphilis, our readers are aware that the first introduction of the poison into Europe is generally imagined to have been about the year 1494; that it came hither from Hispaniola, with the followers of Columbus, and was first remarked, particularly as a novel distemper, committing great and hitherto unheard-of ravages at the siege of Naples. Dr. Hamilton, however, has recently endeavoured to prove that it was the sibbens, and not lues, which excited so much attention at this time, and in this place; and he grounds his opinion partly upon the statements of contemporary and succeeding authors, respecting the character of the ulcers, the mode in which they were said to be communicated from one to another, and the parts of the body described as primarily and particularly affected. The principal objections which strike us to these assumptions of Dr. H., are the present lack of sibbens in Hispaniola, and the silence of the older authors on the subject of the lues venerea. The question, however, demands further investigation, and we must confess that Dr. H. has contrived to bring together in a small compass a large body of evidence in favour of his opinions*.

We are now to say a few words on another morbid poison, the vaccinia. As in the case of the lues venerea, so in respect to vaccination, the opinion of the medical world has recently somewhat vacillated. It need scarcely be stated that

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* The paper to which we allude, is in the October Number of the Edinburgh Medical and Surgical Journal. On the subject of syphilis and pseudo syphilis, Mr. Carmichael has just published a small volume, which it is our design to notice shortly in a more particular manner. During the year two papers have appeared on the subject of treating lues without mercury, in the Transactions of the Medical and Chirurgical Society. See REPOSITORY, page 483. See also pages 459 and 466, of Vol. IX. See also Vol. X. page 203.

the great point to settle in reference to this particular is, Whether the vaccinated and the inoculated child stand upon the same ground of security with respect to future exemption from variolous infection?

Recent occurrences have tended to qualify, in the minds of most practitioners, the identity of preservative influence in the one and the other, while some still maintain that variolation is not a greater security than vaccination against an attack of small-pox. In defence of this position are adduced the very great number of vaccinated, compared with inoculated subjects in a given space of time, the slovenly and inefficient manner in which vaccination has in some instances been performed, and the supposition that those eruptive disorders which formerly, (under the notion that secondary small-pox was of extremely rare occurrence,) were all classed and considered as chicken and swine-pox, have been in reality modified small-pox. This last notion of the identity of chicken-pox and modified small-pox, is very ably, if not quite satisfactorily advocated by Dr. Thomson, of Edinburgh*: and it is an undisputed fact, that since vaccination has become general, we very seldom hear of what, twenty years since, was exceedingly common, the disease called varicella. But it appears that a more extended series of observations and experiments is requisite to establish what all who wish well to the cause of humanity, must wish to see completely established, namely, the absolute identity of conservative influence from the variolous infection, conferred by the two inoculations. A sufficiency of evidence, however, has been adduced in our minds, to cause us readily to subscribe to the following corollary of Mr. Hennen to a very admirable essay on eruptive diseases†.

"That by an universal adoption of, and steady perseverance in, the practice of vaccination, the ravages of the small-pox may be effectually diminished, and even the disease itself, perhaps, exterminated. And that this *extermination, the great ultimate object of the Jennerian plan, affects much more nearly than is generally imagined even those who have already undergone the horrors of small-pox, and who have been subjected to its mild, but powerful preventive.*"

This latter clause of the above position refers to the probability that we have calculated rather too largely even upon small-pox security against subsequent visits in various forms of this malignant virus. Mr. Hennen, like Dr. Thomson, seems to think it at least a doubtful point whether the cause

* Edinburgh Medical and Surgical Journal, October Number, page 518. † Ibid. page 410.

producing varicella be a distinct and *sui generis* poison, or whether it may not be a modified species of the genuine small-pox.

Dr. Monro, jun., has lately published a Treatise on the subject of small-pox and vaccination *, in which he maintains that the preventive powers of the vaccine virus do not, as it has been alleged, wear out. He proposes as a mean of obtaining all the advantages which vaccination might be made to afford, that government should impose a law for universal vaccination; maintaining, that were such regulations adopted, the small-pox would die away for want of subjects for its propagation. Dr. M. recommends, with Mr. Moore, Bryce's plan of testing, in order to ascertain whether vaccination have been effectively performed. We shall shortly lay before our readers a more detailed account of the contents of this volume.

Having thus, as largely as our limits allow us, adverted to the prevailing sentiments of the profession respecting the recent epidemic fever, the subject of syphilitic affections, and the question of vaccine security against small-pox, we now proceed to a more detailed analysis of the medical literature of the last twelve months, premising as an apology for the omissions and defects which will be discovered in the following sketch, that a little miscalculation has been made with respect to the time and powers that could be devoted to the superintendence of this Journal; and that henceforth (as indeed it has already been intimated,) the labour of conducting its concerns is to be considerably divided. Mere apologies for inefficiency, we should deem it an insult to our readers to make, were they not thus accompanied by promises of future improvement, which we confidently expect will be more than fulfilled.

ANATOMY AND PHYSIOLOGY.

On the first division of this head, it cannot be expected that the space of a few months will furnish much of novelty. To the alleged discovery of a new membrane in the eye we have already adverted †; and beyond this single fact we do not call to recollection any thing in our own country that can even prefer a claim to the nature of discovery. And with regard to works on anatomy we have nothing to notice, as having issued from the British press, excepting "Stanley's Manual for the Use of Students engaged in Dissections;" a

* "Observations on the different Kinds of Small-Pox, and especially on that which sometimes follows Vaccination."

† Repository. Vol. X. p. 84.

tract which appears to us, both in the order of its arrangement and in the precision of its language, to be well calculated to assist the dissector in his researches. This tract possesses an advantage over some others which we have seen, in its description of parts following the order of the dissector's knife.

Our continental neighbours have recently outstripped us with respect to the niceties of anatomical research. A description of the fifth pair of nerves and their anastomoses with other nerves, especially with the great sympathetic, has lately made its appearance from the pen of Dr. Bock*, and has been noticed in the new Journal of Foreign Medicine and Surgery. Within the cavernous sinus, and opposite to the third incurvation of the carotid, a small ganglion is described by Dr. Bock, from which nervous filaments arise that unite themselves to the radices of the ophthalmic ganglion. The reviewers justly remark, in reference to this statement of Dr. Bock, that M. Rikes and Cloquet have also mentioned this ganglion; the latter distinctly describing the filaments in question as part of the great sympathetic. The discovery, they add, of this distinct connexion between the great sympathetic nerve and the lenticular ganglion, throws an additional light upon the changes which the iris and pupil undergo in affections of the organs of chylification. Dr. Bock affirms, that the description which has hitherto been given by anatomists of the anastomoses of the lachrymal nerve, and the cutaneous nerves of the cheek, is not correct; and he states, that the nerves which supply the tympanum are not derived from the chorda tympani, whence, he says, no branches arise, but that they are supplied by the superior nerve of the meatus auditorii, which originates from the superficial, temporal, or external auricular nerve. The execution of this work, which we have not ourselves seen, is lauded by the reviewers as differing widely from ordinary books of anatomy, and as being very creditable to the powers and industry of its author.

Dr. Weber has likewise recently published a very elaborate work on the *comparative anatomy* of the sympathetic nerve†. After tracing, in a very luminous and masterly manner, the distribution of this nerve in the four classes of vertebral animals, he institutes between them, exclusively with regard

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* Beschreibung des fuenften Nervenpaares und seiner Verbindungen mit anderen Nerven, vorzueglich mit dem Gangliensysteme. Mit Kupfertafeln. Von. D. Aug. Carl Bock, Prosec. an den Anatom. Theatre zu Leipzig.

† Anatomia Comparata Nervi Sympathici. Auctore E. H. Weber. 8vo. Lipsiæ.

to it, the following very instructive parallel.—The sympathetic nerve is constantly less developed in proportion as the animal to which it belongs occupies a lower step in the scale of being. Mecket has long since demonstrated this fact. The nerve which exists with its ganglia, even in the smallest *mammalia*, almost wholly disappears in fishes of the largest size, and displays no ganglia in the greatest part of its course. Even on contemplating the different orders of the class of mammalia, the nerve is seen to diminish in proportion, not to the volume of the animal, but to the rank which it occupies.

This peculiarity is very remarkable in *birds*. The sympathetic nerve in these is most intimately connected with the vagus, or eighth nerve; and then its ganglia become almost confounded with the nerves of the neck, wings, and thorax. But there are neither the large ganglia of the neck, nor a real cœliac ganglion; and instead of the numerous visceral plexuses, simple twigs only are seen, which accompany the arteries without forming ganglia.

On descending from birds to *reptiles*, the sympathetic nerve is seen rather large in the frog, but it is confounded with the vagus; and the branches of communication which it receives from the spinal nerves are larger than those which it furnishes to the viscera. No cœliac plexus exists.

Lastly, this nerve almost wholly disappears in *fishes*, where it presents neither internal nor external ganglia. Hence it appears that the sympathetic nerve is degraded in proportion as the nerves, distributed by the par vagum to the viscera, acquire a larger volume. This latter, consequently, becomes developed at the expense of the former in the inferior classes of vertebral animals, and at last, as in the *cephalepoda*, wholly usurps its functions.

Respecting the nervous chord of invertebral animals, Dr. Weber entertains opinions widely differing from those of several celebrated anatomists who have preceded him. He considers it as identical neither with the spinal marrow, nor the sympathetic nerve of vertebral animals. But his peculiar and really interesting views on this subject, we cannot, at present, allow ourselves to develop. Deeply convinced, however, of the importance of comparative anatomy in elucidating the physiology of the human organs, and ever anxious to incite our countrymen to the prosecution of a branch of science so admirably calculated to improve a talent for observation, and inspire comprehensive and philosophical views, we shall, ere long, present an analysis of the work; of which even the imperfect notice just delivered will suffice to demonstrate the value.

The eye, from the extreme delicacy of its structure, is one

of those organs which, even in the present advanced stage of the science, offers an unexhausted field to the industry and talents of the cultivators of minute anatomy. Some novel opinions on the nature and functions of the ciliary circle were noticed in our last retrospect *. We have now to direct the attention of our readers to a Memoir on the Pupillary Membrane, and on the Formation of the small Arterial Circle of the Iris, read last July, at the Royal Academy of Sciences, by Dr. Jules Cloquet †, a celebrated anatomical professor, of Paris. Our limits will only allow us to transcribe the propositions which Dr. Cloquet considers himself as having established on the solid basis of reiterated observation; and which, in fact, constitute a tolerably correct abstract of the objects and nature of the work :— 1. The pupillary membrane invariably exists in the human fœtus, and commonly remains entire till the seventh month of pregnancy. Sometimes it is destroyed at a more early, but is rarely seen at a later period. It is perceptible about the close of the third month. 2. This membrane, previously to its rupture, forms with the iris a perfect septum between the two chambers of the eye. 3. The anterior chamber constitutes, before the pupillary membrane is destroyed, a cavity without any opening, lined by real serous membrane, which secretes, and immediately encloses, the aqueous humour. 4. The posterior chamber, which is very minute, contains, at the same period, a limpid serous humour, less abundant than that of the anterior chamber. 5. The pupillary membrane is formed of two opposite membranous laminæ, enclosing in their interspace numerous blood-vessels. 6. These vessels are furnished by the branches of the longer ciliary arteries, which extend beyond the opening of the iris, to form flexile arches in the interval of the two membranous laminæ, just mentioned. 7. These vascular twigs do not anastomose, by their convexity with those of the opposite part; and there remains between them, in the centre of the pupil, a space where the membrane is destitute of vessels, and consequently more feeble than elsewhere. 8. The destruction of this membrane is attributable neither to its maceration in the humours of the eye, nor to the process of nutritive absorption; since, after rupture, its floating remnants and vessels are invariably seen. 9. From the facts recorded in the memoir, Dr. Cloquet considers it highly probable that the rupture of the pupillary

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* Repository. Vol. IX. p. 4.

† Mémoire sur la Membrane Pupillaire, et sur la Formation du petit Cercle Artériel de l'Iris, &c. Par M. Jules Cloquet, M. D., &c. 8vo. avec une planche. Paris.

membrane is effected by a retraction of its vessels, which recede towards the smaller circumference of the iris, and consequently from the centre of the pupil; and that, perhaps, the iris itself contributes by its movements to the process of laceration. 10. The small arterial circle of the iris exists not in the fœtus *previously* to the rupture of the pupillary membrane: it is, in fact, formed by the vessels of this membrane, which have retracted towards the iris without having suffered the slightest laceration. 11. The small arterial circle of the iris, which is situated on the very circumference of the pupil in the fœtus, is retracted, in the adult, upon the anterior surface of the iris. 12. The laxity of the anastomosing vessels of the lesser arterial circle of the iris, is highly favourable to the dilatation and contraction of the pupil. In conclusion we may remark, that Dr. Cloquet has twice seen, in the pupillary membrane, very delicate vascular ramifications uniting the twigs on one part of the circumference of the membrane to those directly opposite; and he thinks that it is probably a similar anatomical disposition which sometimes prevents the rupture of this membrane in individuals blind from their birth: an opinion which derives apparent confirmation from a case of continuance of the pupillary membrane, observed by Wrisberg in a blind child destroyed by small-pox; and in whom, on dissection, a strictly analogous membrane was discovered, with some very delicate vessels passing from one border of the pupil to the other. Dr. Cloquet proposes to publish shortly his observations on the pupillary membrane of animals.

By the same author, a Memoir on the Cremaster Muscle has also been lately communicated in one of the French journals*. Notwithstanding the perfection which the study of myology is in these days supposed to have attained, there are yet several muscles in the human body, respecting the precise disposition and peculiarities of which erroneous notions are entertained. Among these may be ranked the cremaster; a muscle rendered important, not so much, perhaps, by its functions as by its obvious connexion with the pathology of the spermatic organ, and the more frequent varieties of hernia.

The exposition of facts stated by Dr. Cloquet, respecting the progressive developement of this muscle in the earlier periods of life, and the mode of its formation, we shall not attempt to trace. The following are the conclusions which he draws from them: 1st, That the cremaster muscle is formed by the inferior fibres of the internal oblique, (and

* Nouveau Journal de Médecine. Tome ii. p. 98.

probably sometimes also by those of the transverse occasionally confounded with it,) dragged down out of the ring by the gubernaculum and testis, to which they adhere during the descent of the latter organ; nearly in the same way as extensible chords, fixed at both extremities, will yield by elongation when pulled down at the centre. 2dly, That it constitutes an envelope which sometimes simply covers anteriorly, and sometimes wholly surrounds the spermatic chord and testicle. 3dly, That, in either case, its fleshy fibres unite into two triangular fasciculi, one of which (commonly the largest, and which ought perhaps to be regarded as the origin of the muscle,) occupies the external, and the other the internal part of the ring. 4thly, That the spermatic chord usually passes *below* the internal oblique muscle, but sometimes *between its fleshy fibres*, which explains the differences observable in the form of the cremaster; and that this peculiarity in the descent of the organ is discoverable, on examination even in old subjects, by the distribution of the inverted arches (of muscular fibre): in the former case, they are seen *only* on the anterior part of the spermatic chord; and in the latter, on the posterior *also*. And, 5thly, That the testicle, and the sac of external inguinal hernia when it exists, are on all sides sustained by the cremaster, and not merely on the external part, as might be supposed from the manner in which this muscle has been usually described.

By this view of the mechanism of the cremaster muscle, observes Dr. Cloquet, may be readily explained that painful pressure of the testicle against the ring which sometimes occurs, and the spontaneous reduction which occasionally takes place in cases of inguinal hernia.

On the subject of anatomy we have nothing farther to notice. The analysis of a Memoir on the Nervous Ganglia of the Nasal Fossæ*, by Dr. H. Cloquet, will be more conveniently reserved for the foreign department of our next Number.

One of the most interesting features in the physiological literature of the year is constituted by the experiments of our countryman, Edwards, instituted and performed in France. Of these experiments and their results, we shall take an opportunity of giving a detailed account at another time. They are on the subject of asphyxia in cold blooded animals, as introductory to the consideration of the same subject in man. We say that we shall embrace a future opportunity of presenting the result of these experiments to our readers in their totality, since it would occupy too much space to do

* Nouveau Journal de Médecine. Tome ii. p. 211.

any thing like justice to them in the present paper, and because they are still only in course, and are not concluded. We may state, however, in general terms, the following inferences to which Dr. Edwards has come, in reference to the important inquiry respecting the influence of air and water upon the life of these animals. These inferences we extract from the Bulletin de la Faculté et de la Sociéte de Médecine de Paris*.

1. That air, independently of its influence upon the function of respiration, possesses several other active properties in their economy.

2. That air operates a vivifying effect upon their nervous and muscular systems, and that water produces an effect exactly contrary.

3. That the blood, even without undergoing the vivifying process of respiration, has a tenfold influence on the duration of nervous and muscular action.

4. That air has an especial action upon the skin as well as upon the lungs.

5. That these animals are capable of sustaining existence for a considerable number of days, buried either in sand or in earth, while the air penetrates these bodies, but that they perish as soon as that is excluded.

6. That the prolongation of their life in solid bodies, even to a greater duration than in the open air, is occasioned by the suspension or diminution in this last case of the perspiratory process.

Dr. Edwards has also paid particular attention to the relative, as well as positive, temperature of the media to which these animals are exposed in investigating the laws by which their existence and the suspension of it are governed; and the whole series of memoirs, when they shall be completed, and when we shall have it in our power to present to our readers an analysis of them, will be found to bear with considerable effect upon the peculiarities of animated functions.

Dr. Park continues to prosecute his researches into the laws of life. Having, in several successive essays†, aimed at the explication of animal function, he has now devoted himself to the developement of the principles regulating the periodical suspension and renewal of functions. And, first, he treats of hunger and thirst. The former, he says, is constituted

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* See Nouveau Journal de Médecine; Aout 1818. Annales de Chimie et de Physique; Juillet 1818. Also the Quarterly Journal of Foreign Medicine and Surgery.

† Brande's Quarterly Journal of Science and the Arts.

of muscular movement; the second, of membranous irritation. The feeling of hunger not being properly ascribable, says Dr. P., either to the collapse, as some have conceived, of the sides of the stomach, or to attrition of the parieties of the organs, or to the eroding influence of the gastric fluid, is properly an effect of the augmentation of mobility, resulting from an altered condition of the muscular fibres of which the stomach is composed. The following are the words of the author himself in explication of the causes of hunger, and its periodical suspension and recurrence:—

"In the stomach the first stage of action is obviously that which begins at a certain period after taking food. That digestion does not commence immediately after eating has long been admitted by physiological writers; a conclusion founded, no doubt, upon observation and dissection. The time generally supposed to elapse before digestion commences is half an hour or more.

"Whenever the organ resumes its action, be the interval more or less, since it is now in the state of greatest repletion, a slight extent of contraction will be sufficient to expel a portion of its contents; and the effort being inconsiderable, accords well with the incipient stage of mobility, or that of feeble and inefficient activity.

"As the process of digestion advances, the extent of contraction required must be constantly increasing; and the more active exertion now called for, to keep up the process of depletion, indicates the approach of the second stage, which is that of vigorous or energetic action.

"When the depletion is nearly effected, the reduced bulk of the organ bespeaks the increasing extent of contraction, and denotes the approach of the third stage of action *. As this stage is characterized by the tendency to inordinate efforts, and the liability to uneasy sensation, the feeling which is now excited on the sense of hunger, well accords with the last stage being that of excessive and painful contraction."

Mechanical distension had, in a previous essay of Dr. Park's, been assumed as the only adequate cause of producing healthy action in involuntary organs; and distention, he says, is evidently the stimulus to the actions of the stomach:—

"It is not, however, the permanent distention arising from the mere bulk of its contents; for distention, like every other impression, gradually loses its influence when permanently applied; but it is the distention alternately applied and withdrawn, at every ascent and descent of the diaphragm, in respiration. From this (says Dr. P.) it may be learned why exercise, at a certain period after eating, pro-

* These several and successive stages and degrees of muscular action in involuntary organs, had already been adverted to and explained by Dr. P. See his previous essays in Brande's Journal.

motes digestion; but if violent, and used too soon after taking food, has an opposite tendency.

" Violent exertion (he continues) before the organ has rested sufficiently to recover its healthy powers of action, and while it is in a state of perfect repletion, must excite over-distention. But it was shown to be a general law, that over-distention of internal organs excites contraction of their mouths, while contraction of organs is attended with relaxation of their mouths. This over-distention would therefore cause the pylorus, or lower orifice of the stomach, to become obstinately constricted, and prevent depletion of the organ, if exercise be violent and prematurely resorted to; but if deferred till absorption, which takes place during the state of quiescence has somewhat lessened the contents, and when, from the stomach beginning to contract, the pylorus relaxes, then digestion is no longer impeded but promoted by exercise*."

From the whole of the premises Dr. P. concludes, that " the phenomena of digestion all accord with the inference that a state of painful contraction in the stomach, analogous to that of fatigue in the limbs, occasions the sense of hunger.

The question of the return of thirst, Dr. Park tells us, involves the query, Why secreting surfaces are liable to become periodically dry? such dryness being the proximate occasion of thirst. But the vessels which perform the office of secretion are not, like the stomach itself, filled only at stated intervals, and thus liable to become empty; but they are continually supplied with fluid from the larger arteries more deeply seated. To explain the periods of thirst, Dr. P. assumes that the muscular actions of the stomach bring with them a corresponding change in the capillary arteries of its secreting membrane; and that, therefore, when the third stage of action, or that of inordinate contraction, arrives, the extreme branches of the capillaries take on a simultaneous state of spastic constriction, which preventing their fluids from arriving at the secreting surface, thereby a dryness of the membrane is occasioned, and thirst arises in consequence. Were this explanation, however, of the rationale of thirst quite satisfactory, we should expect that eating would relieve the sensation by putting a stop to those contractions of the stomach upon which the capillary constriction depended.

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* " Quand l'estomac (says Bichat) a été long-tems resserré sur lui-même, il est probable que la lassitude qui s'empare de ses fibres, détermine en partie le sentiment que nous nommons la faim." Dr. Park allows the above to be a kind of anticipation of his own theory; but he remarks, that Bichat in adducing it is inconsistent with himself, since he had elsewhere maintained that " involuntary organs are not subject to fatigue."

Morbid thirst, our physiologist assumes, is not caused by capillary constriction, as in the natural sensation; but it is brought about, he says, by a relaxation and over-distention of vessels, attended with a constriction of their mouths. "The transition from one state to another (we are told) admits of easy explanation; over-contraction of vessels naturally leading to relaxation and over-distention, just as excessive fatigue is liable to produce a subsequent state of languor and debility in the limbs, amounting often to sub-inflammation." We are not quite sure whether the ingenuity of Dr. Park does not lead him occasionally to gratuitous assumptions, and explanations of difficulties that are not very satisfactory. There is a great deal, we think, connected with indigestion; and failure, and increase of appetite, as well as the production and cure of thirst, from particular circumstances of the frame, that if not irreconcileable with, is left unexplained by, the positions and principles of Dr. Park.

In giving a general outline of the physiology of the preceding year, it may be right just to refer to the arguments lately adduced by some of the French writers in support of venous absorption. Some extracts from one of the French Journals on this head, we have recently presented to our readers*. One observation, however, will suffice as an answer to all: the statements and inferences of experimenters on this subject, viz. that although the facts adduced go to prove the possibility of the blood receiving extraneous matter in the way of absorption, they do not show that such power appertains to the vessels circulating that blood. We are ready, however, to allow, that a great deal remains to be proved in order to establish the fact of lymphatic absorption in the exclusive way that is generally conceived; and we think that much has been taken upon trust in our wishes and endeavours to unfold the arcana of this part of animal functions. "The laws (we have before remarked,) which regulate the transmission and extravasated deposit of serous and other fluids from the circulating mass, appear to us to be still involved in a good deal of what is doubtful in premise, and false in inference; and we think that physiology and pathology may still be very profitably exercised in further investigations of these important points. Mr. Carlisle has well said in his recent lectures before the College of Surgeons, that "since the discovery of the absorbents we have been too disposed supinely to attribute all obscure functions to their agency, to endow them with faculties and accuse them of faults without due evidence of their being either possessed of the one, or chargeable with the other."

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* Repository, Vol. X. page 236.

With regard to the circulation also, much remains to be explored and explained for the attainment of complete satisfaction on this very interesting, and indeed fundamental part of physiology. Dr. Armstrong* has thrown out a few hints on this topic, which he has almost promised ere long to mould into form and substance. From what we have been able to gather from his slender intimations, we infer that his views of the powers by which the vital fluid is propelled in the round of circulation, are a good deal similar to those of Dr. Parry on the subject: views and principles with which we must confess ourselves not quite satisfied, at least with that part of them which assumes the passive condition of the arterial tubes in the great business of circulation. Were the vessels not endowed with a muscular resisting power, would not the distention of vessels be in a ratio proportionate to the propelling energy of the heart's impetus? and if the arteries do contract upon the column of circulating blood, that contraction, it would seem, cannot fail of influencing the current of contained fluid. Beside, were the heart the sole agent in urging the stream of blood into the veins, no topical increase of arterial action could be generated by friction, or other mechanical means, inflammation and congestion would be out of the question, and the idea of topical blood-letting altogether erroneous. We shall conclude these brief hints on a subject to which ere long we shall probably be called upon to be much more particular by the following sensible remark from a contemporary Journal†:—

"In all the speculations on the circulation, there has been one important point forgotten, that the internal coat of the artery and the blood have a certain relation to each other, which preserves the blood fluid, and prevents coagulation. Any experiments on the force of the heart in propelling the blood through *tubes*, will necessarily be erroneous."

Previously to the dismissal of this portion of our general review, it will be expected that we notice a book that has but just come into our hands, and which therefore it will be impossible to do that justice to in this place, which both the importance of its subject and the high character of its author demand. We allude to Sir Charles Morgan's work on the Philosophy of Life. This book, therefore, must for the present lie by as one of our resources for analysis. We will just, however, remark, that the slight peep we ventured to take into this performance gave us the idea that it was tinctured with the cant of the day, in referring every thing in a

* See his work on Scarlatina, Measles, Consumption, &c.

† Journal of Foreign Medical Science, &c.

wholesale way to organization, and deriding the existence and agency of *motive*. We would just ask such speculators, What difference they conceive to be in the organization of a boy, whose recollection of a good beating makes him abstain from repeating the robbery of his neighbour's orchard, from what would have been the case had there been no punishment, and therefore no motive to forbear the second edition of his roguery? We, of course, place out of the question any actual organic injury occasioned by the punishment.

MISCELLANEOUS WORKS ON MEDICINE.

A SMALL tract has lately made its appearance, under the title of Medical Sketches, &c.*, marked by more erudition than we are at present accustomed to see, even in larger volumes. The writer first treats of the hellebore, as used by the ancients in cases of insanity. In his second essay he maintains, that the ancient remedy for gout, used especially by Demetrius with alleged success many centuries since, viz. the hermadactylus, is the same plant with the colchicum so much lauded in that disease in modern times. The third paper of this little volume is on the subject of spasmodic affections of the uterus after delivery, in which our author maintains, that the efforts of the ancients to counteract the tendency to death under these circumstances were much more in the spirit of determination to effect something, than those employed by our contemporaries. "Patients (he tells us) are now said to die by the visitation of God, whose death would have in former periods been charged against the medical practitioner as a criminal neglect of duty." He even goes to the extent, if we rightly understand him, of hinting that an exalted personage, whose death excited such general feelings throughout the nation, was permitted to die for lack of exertions to preserve the vital principle from sudden extinction. *Fas est ab omnibus docere.* Although we should hesitate to accompany Mr. Kerr in all his intimations to their full amount, we think it might not be amiss occasionally for some of our modern practitioners to amuse themselves by turning over the dusty and neglected volumes of their predecessors.

Mr. Johnson's Essay on Gout has already been alluded to in our pages. It has now taken a new and somewhat enlarged form, by appearing as a separate publication†. The essay itself is an exceedingly good one; but it is questionable

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* By George Kerr.

† Practical Researches on the Nature, Cure, and Prevention of Gout. By James Johnson, Esq. See Restrospect of the preceding year.

whether its paraphrastic translator would not have done better to have sent it forth in a less equivocal shape. The reader, as the business now stands, is left at a loss whether to regard the productiou as original or second-hand.

This very able author's Treatise on the Atmosphere we have already pretty largely noticed*, and his more elaborate work on Tropical Diseases it is our intention shortly to analyze. We also purpose to notice, in the analytical department of a future Number, his pamphlet on Civic Life, the main design of which is to prove an equality in the distribution of happiness through the different ranks and gradations of society. Of Thomas's Modern Practice of Medicine we have been pleased to see a new edition. This is a very excellent compendium of the discoveries, and improvements, and practice of modern times. Under the present head, we may notice Mr. La Beaume's Treatise on Vapour-Baths, on Electricity, and Galvanism. Remedial resources of this nature are apt to fall into discredit, from the circumstance of their proprietors and propagators, if we may so express ourselves, being disposed to raise their virtues to that catholicon pitch which sober and disinterested experience fails to ratify. A little too much of this spirit is perhaps evinced in the pamphlet of the writer before us. Certain it is, however, that beneficial effects are occasionally procured by these extra kind of stimuli, when others have failed. In relation to galvanism especially, our readers will recollect the favourable reports of its influence, by a highly respectable practitioner, in certain affections of the pulmonary organs; and we have recently seen a well-attested case of much good having been effected by this stimulus, in a torpid inactive state of the liver, when other remedies had proved of no avail. The galvanism in this instance was employed under the direction of Mr. La Beaume.

We had almost overlooked a work which, from the little insight we have had of it, appears to demand much more notice than the cursory one which it is only in our power to take of it in the present instance. We allude to Observations on a Stridulous Affection of the Bowels, and on some Varieties of Spinal Disease†. This work we shall seize an early opportunity of presenting to our readers in a more ample manner.

In this part of our review we may, perhaps, with propriety mention a statement in one of the late numbers of the Nouveau Journal de Médecine‡, of the great benefit resulting from the use of the essential oil of turpentine, especially in the sciatica. Two drachms of this mixed with four ounces of honey of roses, and administered in three doses during the

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* Repository, Vol. X, page 126.

† By Dr. Bradley. ‡ d'Avril, 1818, p. 335.

day, operated, we are told, in less than six days, the complete removal of seven cases of sciatica, and three of pains in the arms of the same description (neuralgies brachiales); and that the cases of this kind in which this medicine has been employed without success are exceedingly few. "It appears (says the author of the memoir on this subject) that in all those neuralgic affections in which the tissue of the nerve has undergone no alteration, the medicine in question for the most part acts with unequivocal advantage, but that it is most conspicuously successful in the sciatic neuralgia."

On the tar vapour in pulmonic affections, to which the attention of our readers has more than once been called during the present year*, a writer in the Journal de Pharmacie† expresses himself in the following terms:—"Before we had seen the statements of Dr. Crichton, we knew a man-servant who was considered to be in the second stage of consumption, and who was cured by the vapour of pitch. His master had employed him to seal a great number of bottles with this substance, and the exhalations from it gave so much relief to his chest, that he from that day continued to inhale the pitch vapour till he was entirely cured."

While on the subject of pulmonic affections, we may just notice, that an interesting Essay has appeared in one of the recent numbers of the Nouveau Journal de Médecine‡, on the question, "Is the asthma of persons advanced in life a nervous affection?" The inference from this investigation, (which occupies about thirty pages of the journal, and which is conducted with a good deal of candour and intelligence,) is given in the following terms:—"Several difficulties, doubtless, remain still unsolved; many objections to our statements and conclusions might be advanced; but to our conceptions the following position appears to be sufficiently justified by facts; namely, that the asthma of old people is a symptom of organic lesion."

The pathology of cardiac affections has recently occupied the attention of medical inquiry; but on this very difficult and very interesting topic of investigation, much still remains to be accomplished by the industry and discernment of future observers. We noticed, some few months since, an interesting paper on this head in one of the volumes of the Medico-Chirurgical Transactions‖: and we have been gratified by a

* Repository. Vol. IX. pp. 265, 409, 457.

† Pour Avril, p. 183.

‡ Septembre, p. 3.

‖ Vol. VIII, Part 2. We may take this occasion to say, that the first part of another volume has recently been published by this society; which we shall shortly analyze.

very ingenious dissertation on active and passive aneurisms of the heart by M. Rostan, which will be found in the Nouveau Journal de Médecine. The scope of this Essay is to prove that even those organic changes in the heart, which might be supposed to result from a morbid excess and vigour of action, are in reality the effects of ossification, and other interruptions of the circulation, which may take place either in some part of the heart itself, its great blood-vessels, or in vessels at a distance from the source and centre of the circulation; and the dissertation is concluded by remarking, that, notwithstanding all the ingenuity and accuracy of Professor Corvisart, Senac's observation still remains but too little disproved; viz. that the several particular species of organic affection to which the heart is obnoxious, exhibit no distinctive signs during life that may be relied on as positively diagnostic.

We shall now close this division of our review by reverting to, and giving a few slender notices of, the labours of our own countrymen.

A work, entitled Practical Observations on Marasmus, by Dr. Ayre, of Hull, has so recently issued from the press, that we shall be excused for alluding to it in very general terms. We are disposed to think, that upon a more minute investigation of its contents we shall find that its ingenious author sometimes attributes the disease in question to hepatic torpor, when this last is merely one of the indications of general and radical inaptitude to healthy action. A want of due energy in the functions of the liver may be often merely simultaneous with that of the mesenteric glands, and indeed may itself be consecutive of primary derangement in the assimilating organs. But let us not prejudge, lest our readers may imagine that we feel a determined and rooted hostility to hepatic views.

Dr. Balfour, of bandaging and pummelling notoriety, has lately given to the world some remarks on the sedative and febrifuge powers of emetic tartar. He conceives that we have too much overlooked the power that the proper administration of this compound may be made to exercise over febrile and inflammatory states; and we believe with him that, in respect of the latter disorders especially, its employment might often well stand in the place of repeated venesections. When the morbid arterial action is brought down to the level of health by nauseating doses of antimonials, we are much less likely to take a step too far and cause effusions into cavities, than when we go to work too fearlessly with our lancet. But here, as well as on the subject of sympathetic influences and hepatic origins of disease, we must be guarded in our expressions, lest our readers should be led

to infer that we take up the cause of opposition to popular doctrines too much in the spirit of party and system — than which nothing we hope is further from our feelings.

In this place, perhaps quite as appropriately as under any other of our general divisions, we may notice the Lectures which have been delivered, during the present year, at both the Colleges of Physicians and Surgeons — the one series to empty benches and pictured walls, the other to crowded seats and attentive audiences.

We cannot help thinking that both the fellows and the licentiates of the College of Physicians would do well to prevent the unpleasant feeling which must necessarily attend the solitary delivery of the discourses now alluded to, by at least occasional attendance upon them. It must be affectation, even for the most occupied of medical practitioners, to pretend to engagements incompatible with affording an hour in a week to so laudable a purpose: and certain we are, that very few of the body would have had cause to lament their presence at any of the Lectures of the preceding spring, prepared and read as they were under every disadvantage and every discouragement. The discourses of Dr. Tuthill on arrow-poisons, of Dr. Powell on the pathology of the brain, and of Dr. Curry in illustration of the Parryean doctrines of the circulation and pulse, were all conceived and delivered in the spirit of true science; and only required a little more of that calorific expansion which an auditory would have ensured, to render them every thing that could be desired. We had the pleasure also of hearing the Harveyan oration of Dr. Lambe, which it is quite superfluous to say, was a piece of chaste and classical latinity; for this writer has only to put his hand to the work of composition, whether in his own or in another language, and a mastery of thought and expression immediately emanates from his pen, and shines through his pages. If we might venture to object to any thing in the discourse last alluded to, we should say that the laudatory parts were weakened by their being rather too liberally and indiscriminately poured out.

The Lectures at the College of Surgeons were heard and admired by too many individuals to need any encomium from our pen; and, indeed, the names of Carlisle and Lawrence are sufficient guarantees for the excellence of the matter contained in their discourses: the latter series of which, we understand, are preparing for publication, and will then fall with more propriety to be considered at some length.

THEORY AND PRACTICE OF MEDICINE.

WITHIN the last few years, the attention of medical inquirers has been alike most properly and zealously directed to the pathology of the spinal chord, and the influence which it exerts in producing the morbid affections of other organs, and particularly the various diseases of the muscular system—a subject previously doomed to an almost utter neglect. It is, however, a cheering circumstance, and one strikingly illustrative of the universal importance which the investigation has suddenly acquired, and of the correctness of the doctrines to which it has given rise, that while Dr. Sanders and his disciples have in this country been prosecuting with ardour their inquiries relative to the spinal marrow, and communicating the results to the public; many eminent pathologists of France, Germany, and Italy, apparently quite unacquainted with the opinions of the Edinburgh physician, and unconnected with each other, have been pursuing a similar path, and arrived at nearly similar conclusions; one of the most prominent and interesting of which is the dependence of convulsive diseases upon a morbid state of the spinal chord, about the origin of the nerves, or of the roots of the nerves themselves, sent off from it to the affected organs. The observations of Dr. Sanders* on the nervous system, published in a contemporary journal, are on this subject highly interesting, and worthy of attentive perusal; and the cases and remarks recorded by Drs. Moulson† and Seeds‡, Messrs. Johnson and Webster‖, and Patissier§, and Esquirols¶, illustrative of the influence of the spinal marrow in the production of chorea, hydrophobia, tetanus, and epilepsy, constitute a most respectable body of evidence in support of the new doctrines. From a case detailed in an Italian journal, in a comment on the work which has elicited these remarks, it will be presently seen that the opinions under review derive additional confirmation.

The publication to which we allude, is a Treatise on the Structure, Functions, and Diseases of the Spinal Marrow, by Professor Racchetti, of Pavia**. It consists of four

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* Medico-Chirurgical Journal and Review. Vol. V. p. 7.
† Ibid. Vol. III. p. 366. ‡ Ibid. P. 513.
‖ Ibid. Vol. IV. p. 283. § Ibid. P. 411.
¶ REPOSITORY. Vol. VIII. p. 428.
** Della Struttura, delle funzioni e delle malattie della midolla spinale, Opera di Vicenzo Racchetti, Professore di Patologia, &c. nella R. C. Universita di Pavia, Milano. 8vo.

sections, divided into nineteen chapters; and respectively treating of the observations and theoretical deductions of the ancients as to the importance, structure, and functions of the spinal marrow; of the organ as considered in the dead body; in the living state; and, lastly, of its diseases. To enumerate even the titles of the various chapters would occupy a space wholly inconsistent with our present prescribed limits. We shall therefore content ourselves with tracing a slight outline of the case to which we have just been adverting. A young man, of eighteen, received a contusion on the root of the nail of the right thumb, followed by inflammation and suppuration. The nail was torn away by a Surgeon: trismus almost immediately supervened, and terminated fatally in a few days. On dissection, the nerves of the right arm, at their origin from the spinal marrow, were evidently gorged with blood; while the nerves distributed to the left arm did not exhibit this minutely coloured appearance. On examining the spinal marrow lower down, the whole organ was found more or less inflamed; but the traces of bloody suffusion were most decidedly marked a little above the commencement of the cauda equina. A transverse section of the medulla having been made, no marks of inflammation were visible interiorly; nor were the brain, cerebellum, or medulla oblongata at all affected with it*.

In addition to this, a long paper on Inflammation of the Spinal Marrow has been subsequently published in the same Journal by Dr. Harles. It is intended as an Appendix to a production on the same subject by Professor Brera†.

While reviewing the progress of medical science with regard to convulsive diseases, we may not inappropriately advert to a case, transcribed from the Giornale di Fisica, in a respectable British Journal‡; which, if correctly stated, completely substantiates an opinion entertained by many of the continental Pathologists, that the symptoms of hydrophobia are not invariably dependent on inoculation with a morbid poison, but may result from mental irritation, in all its characteristic violence and intractability.—A young man, in the act of separating his dog from another with which it was fighting, received from the teeth of the enraged animal a wound in his leg. The dog soon afterwards disappeared: and his master, believing him to have been mad, fell into a state of profound agitation and distress. On the fifth day, horror of water and other hydrophobic symptoms were developed. Five days

* Giornale di Medicina Pratica, Fascicola XXIII.

† Ibid. Fascicola XXIV. page 24.

‡ Medico-Chirurg. Journal. Vol. V. page 424.

afterwards, the young man, while lying abandoned to his fate, and anxiously looking to death for a termination of his sufferings, was most gratefully surprised by the intelligence that his dog had returned quite well. The animal, introduced into the chamber of his master, fondled him as usual; and thus, by the evidence of his sanity, rescued from impending destruction the despairing subject of an imaginary disease. From that moment his owner rapidly recovered. A somewhat similar case, if we recollect aright, is mentioned by Mr. Hill, in his Treatise on Insanity. We may in conclusion remark, that some very judicious observations on the treatment of the wound inflicted by a rabid animal have lately been communicated to the public through the medium of a provincial newspaper, by Mr. John Freer Proud*. They contain doctrines with which the minds of the Profession, and indeed of the nation at large, cannot be too strongly impressed. Our readers will also recollect the suggestion of one of our Correspondents in reference to the possible good which might result from the administration of volatile alkali in this most dreadful complaint†.

Few of our readers are, we trust, unacquainted with the excellent Essay of Dr. Marcet on Calculous Disorders. Another work on the same subject, and scarcely yielding to that in importance or the ability which it displays, has, during the present year, been published by the well-known French Physiologist, Dr. Magendie. The professed object of his "Recherches‡" is to communicate the results of his observations on the causes and treatment of urinary concretions; and, at the same time, to show the utility of a prudent and judicious application of chemical knowledge, and of physiological experiments cautiously instituted, to practical medicine.

A tolerably correct notion of the opinions of Dr. Magendie, respecting the origin and treatment of urinary calculi, will be conveyed to our readers, when, recalling the doctrines propagated by this indefatigable Physiologist, with regard to the influence of aliment, destitute of azote, on the animal economy||, they are farther informed of his reiteration of the assertions before advanced, that the urine of man and all other animals which feed upon *azoted* substances, contains

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* Wolverhampton Chronicle for September 9th.

† Repository, Vol. X. page 350.

‡ Recherches Physiologiques et Médicales sur les Causes, les Symptômes, et le Traitement de la Gravelle; par F. Magendie, M.D. 8vo. p. 91. Paris.

|| Annales de Chimie et de Physique. Septembre 1816.

uric acid; while no trace of it is discoverable in the urinary secretion of herbivorous animals, or even of those of the carnivorous tribe, which are restricted to a regimen destitute of *azote;* and that the uric acid is exclusively generated by *animal* substances. Of the correctness of this theory, our own observation, we acknowledge, leads us to entertain very serious doubts; but when a man of real science and undoubted integrity, like Dr. Magendie, appeals to direct experiment in support of an assertion, the silent indulgence of our scepticism would surely be more decorous than its open avowal, were we not so deeply convinced as we are that nothing, not even the inferences from loose analogy of the ancient philosophers, or the flights of imagination of modern visionaries, can be more pregnant with fallacy and delusion, than experiments instituted under the influence of preconceived opinion, or prosecuted with a view of supporting some favourite hypothesis.

However this be, it seems to have been proved by recent analysis, that one hundred parts of uric acid contain thirty of azote. And it is somewhat remarkable that Dr. Magendie represents urinary concretions as being *almost invariably* composed of uric acid; while those varieties consisting, wholly or in part, of the oxalate or phosphate of lime, or of the cystic oxyde, are expressly stated to be of *very rare* occurrence. If this statement of Dr. Magendie be really correct, the fact can only be satisfactorily explained on the supposition of some peculiarity of climate or aliment which determines, in the inhabitants of France, a result very different from that hitherto observed and recorded in this island*.

As the work of Dr. Magendie, too important to be dismissed with this cursory notice, will be shortly submitted by us to a rigorous analysis, we shall not now proceed further than to expose the author's views respecting the causes of urinary concretions, and the indications by which their treatment should be directed.

The formation of calculi is dependent on circumstances which favour the precipitation of uric acid: and these are principally, although perhaps not exclusively, the following: 1st. The augmentation of the uric acid, without a correspondent increase of the secretion of urine: 2dly, a diminution in the quantity of the latter, the quantity of the acid not being reduced: 3dly, a diminution of the temperature of the urine. And the obvious indications are, 1st, to reduce the quantity of the uric acid secreted by the kidnies; 2dly, to

* See Dr. Marcet's Essay on the Chemical History and Medical Treatment of Calculous Disorders.

augment the secretion of urine; 3dly, to prevent, by saturation, the *solidification* of the uric acid; and, lastly, in the event of the urinary concretions being actually formed, to attempt their solution or favour their expulsion. The curiosity which this imperfect sketch may have served to excite in any of our readers respecting Dr. Magendie's work, will, we trust, be amply gratified in our February Number.

The pathology of the uterus, notwithstanding the deep importance and interest of the subject, has never, as far as our recollection at this moment serves us, been hitherto professedly, or at least exclusively treated of, by any British writer. Several monographs, devoted to it, exist in the continental languages. A very respectable production of this nature was last year given to the world by Dr. Nauche, of Paris*. But the object which we have at present in view, and to which we are anxious to direct the attention of professional men, is a splendid Treatise on the Diseases of the Womb, illustrated by engravings, and not long since published in German by Dr. Wenzel†, at Mayence. It consists of an introduction, and twenty-six sections; of which three constitute the *first part* of the work, including a description of the uterus in a sound state; and the remainder are arranged in the *second part*, and comprehend an exposition of the phenomena of the diseases of the organ. The Introduction is written in that mysterious and extravagant style which, fortunately for taste and science, is almost peculiar to productions of the German school; but, in the subsequent portion of the work, the structure and various morbid affections of the organ are described in a very clear, judicious, and masterly manner.

In treating, towards the conclusion, of the treatment of induration and cancerous ulceration of the uterus, Dr. Wenzel decidedly reprobates any attempt at extirpation of the organ by the knife; and proposes the following internal and external remedies as alone to be relied on for the palliation or cure of this dreadful malady. In the stage of *induration*, repeated abstraction of blood from the vicinity of the diseased part by application of leeches above the pubes, around the vulva, and particularly about the anus, except when the patient has been worn down by profuse hæmorrhage or leucorrhœa; the esta-

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* Des Maladies de l'Uterus, ou de la Matrice; par M. Nauche, Médecin-Consultant de l'Institution Royale des Jeunes Aveugles, &c. Paris.

† Ueber die Krankheiten des Uterus. Von K. Wenzel. Folio, p. 196. Mayence.

blishment of a purulent drain near the exit of the sciatic nerve from the pelvis; and injections composed of decoction of carrot or hemlock. Emollient injections are useless; and those which are prepared with irritating substances are mischievous, in as much as they serve to accelerate the formation of the ulcer. This *event once having taken place,* a cure is no longer practicable, unless the excision of the diseased portion be attempted with success. In this desperate condition, laurel-water may be usefully employed to soothe the pains, and retard the progress of the malady; and arsenic administered in combination with potash, as in Fowler's Solution, Dr. Wenzel has found to operate most beneficially, and to constitute a very valuable palliative remedy under these deplorable circumstances. They to whom the original publication, by its language and extravagant price, is rendered inaccessible, will probably receive with pleasure our promise of a correct and copious review of it, as soon as our already stipulated engagements will allow us an interval sufficient for its composition.

SURGERY.

The French Surgeon, Baron Larrey, as our readers will recollect, published, in 1812, Memoirs of Military Surgery, in three volumes. They comprehended an account of his services in the French army during the sanguinary and eventful period of its operations from 1791 to the close of the Austrian campaign in 1809. The fourth volume of this interesting work* has not long since appeared. It contains an historical detail of the memorable campaigns of Russia, Saxony, and France, interwoven with the recital of important chirurgical cases. Besides cursory notices respecting the amputation of the arm at the shoulder, and of the lower extremity at the hip-joint; a new method of evacuating the contents of large abscesses by puncture with a thin blade of *heated* steel, and the subsequent application of a cupping-glass, empyema, and the epidemic diseases of armies, Baron Larrey treats at considerable length, and in his wonted masterly style, the following subjects:—Wounds of the head with fracture of the cranial bones, and the presence of foreign substances, and the causes of abscesses of the liver consequent on these injuries; wounds of the abdomen with protrusion of the omentum; wounds of the bladder; wounds of the arteries, and aneurisms; and, lastly, the advantages of actual cautery, and especially the moxa, in the treatment of rachialgia and spontaneous luxations of the femur, to which he

* Campagnes et Mémoires de Chirurgie Militaire du Baron D. J. Larrey, &c. Tome IV. 8vo. Paris.

gives the title of *femoro-coxalgia*. The volume closes with an alphabetical table of contents for the whole work, rendered highly necessary by the defective arrangement which throws such an unfriendly shade over its interest and its excellencies. Like its predecessors, this volume is illustrated by several plates.

The fondness which the French exhibit for the *employment* of the actual cautery in the treatment of diseases must have been remarked by all who are familiar with the medical literature and practice of that enterprising nation. Dr. Gondret has just added another work to those already published, on the employment of that powerful remedy in medicine*. It is divided into *two parts*. In the *first* of these, the author demonstrates the advantages of actual cauterization in general, and of its application to the vertex of the head in particular; and illustrates the subject by examples of the success of this practice, in cerebral affections, leucoma, cataract, gutta serena, and sciatica. In the *second*, he proposes a new topical remedy, capable of producing, or rather imitating, all the effects and degrees of cauterization, from rubefaction to actual destruction of the part to which it may be applied, and preferable to the use of fire, as being less terrible in its application to the patient. The composition of this ammoniacal liniment is transcribed below†. The mode of its employment must consist in friction; application on linen from six to eight minutes; or from fifteen minutes to half an hour, according as it is designed to excite perspiration, rubefaction, or vesication.

After having stated the salutary effects of this remedy in various diseases, Dr. Gondret establishes the following conclusions:—Fire, of all the agents of nature, is that which most eminently possesses the faculty of restoring the vital forces to their natural rhythm, and of dissipating the different causes of disease: 2dly, The ammoniacal liniment is endowed, after fire, with very various epispastic properties, highly useful in many acute and chronic diseases: 3dly, Compared with the Lytta, it is preferable to every preparation of this insect, both for the promptitude of its action, and the advantage of not affecting the system by absorption: lastly, The

* Considerations sur l'Emploi de Feu en Médecine, &c.; par L. F. Gondret, D.M.P., &c. Paris.

† Melt by a gentle heat in a wide-mouthed flask, four drams of tallow (or cocoa butter), and four drams of oil of almonds (or olive-oil or lard), and then add, *by degrees*, solution of pure ammonia at 22°, and stir the mixture till it is cold. It must be kept carefully excluded from the air. In warm weather it may be prepared in the proportion of six parts of tallow to two of the oil.

knowledge of these grounds of preference will probably restrict the employment of the Lytta to those cases in which the excitement of the brain or heart, or the irritation of the urinary passages, is indicated.

An account of the splendid operation of M. Richerand, (which certainly stands foremost in prominent effect among the surgical essays of the year,) we have already given in detail to our readers *. We do not mean to weaken the impression that this bold and successful attempt must have made upon the public, by stating that the individual who was the subject of it is since dead; not of the immediate consequences of the operation itself, but, as we ventured to predict in our remarks on the case, from the return of the disorder.

It affords some grounds for national exultation, as the Editors of the Journal of Foreign Medical Science well observe, to find the French surgeons at this moment discussing, and but reluctantly admitting, points in surgical practice which have been long settled among ourselves. Mr. Hunter's method of operating for aneurism; Mr. Abernethy's proposal of placing a ligature on the external iliac; and, lastly, the application of the ligature to the carotid artery, are all now adopted by our neighbours as great and practical improvements in the art of surgery.

On the structure, economy, and diseases of the eye, we are given to understand that the Germans are far before both the French and English practitioners. In an introductory Lecture to a Course on the Diseases and Operative Surgery of the Eye †, which we have perused with pleasure, the following sentence struck us as a strong enunciation of this fact: "Would (says the lecturer) that I could flatter myself that I had caught a spark from the enthusiasm of the learned and enlightened Professor Beer, who has contributed so much to gain for his country this just eulogium, that as far as England is above France in a knowledge of this department of surgery, so far, at the present, is Germany above England."

A work has recently appeared, in Vienna, on the Secondary Cataract and Iritis after the Operation of Cataract ‡, which we have not seen, but of part of which there is a very able analysis in the Journal of Foreign Medicine. We wish it were in our power to do any thing like justice to the value of this Essay; a further notice of which we must reserve for the

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* Repository, Vol. X. p. 238.

† By William Mackenzie.

‡ By John Adam Schmidt, Med. et Chirug. Doctor.

foreign department of some future and early Number of the Repository. "It is somewhat remarkable (it is justly observed) that the phenomena attending inflammation of this membrane should only so lately have been observed and described. Next to the conjunctiva, it is the texture of the eye which is most frequently affected with inflammation; and the changes which this process occasions can no where else be so distinctly seen or examined."

In the course of the present year, Sir Everard Home has published a second volume of Observations on the Treatment of Diseases of the Prostate Gland. A certain degree of respectability must necessarily attach itself to whatever comes from this quarter. We cannot, however, avoid the remark, that the present volume is a little too expanded into a book-making form. Sir E. H. has, in this last work, particularly dwelt upon the enlargement of the middle lobe. Hæmorrhage from sudden pressure, we are told, is a symptom attending these complaints, which, though constituting a diagnostic mark of the disease, had not come fairly under his observation when he published his first volume. "When the blood comes forward in this case, it is little mixed with the urine, and coagulates; and when it follows the urine, that secretion is clear, and it is only the latter portion that is blood." By attending to this peculiarity, Sir E. Home remarks, that the distinction may be made between the disease in question and hæmorrhage from the coats of the bladder, in consequence of fungus excrescences projecting into its cavity.

In our last review of Mr. Bell's Quarterly Reports*, we had occasion to point out the caution of that author on the subject of instrumental interferences by rude and ignorant surgeons, especially in complaints of the urinary passages; and we are informed by Sir E. H. in the volume before us, that inflammation and even ulceration of the middle lobe of the prostate is often brought on "by the want of delicacy in introducing the instrument into the bladder." On the treatment of enlarged prostate in its middle lobe, our author has not much to advance beyond negative rules. He tells us, that the tepid hip-bath, which it is so usual to have recourse to in these affections, is as improper "as putting the head in warm water would be to remove the symptoms of apoplexy produced by bursting a blood vessel in the brain." Nearly half of Sir Everard Home's volume consists of an appendix, constituted mainly of a reprint of Mr. Brande's papers on Urinary Calculi read before the Royal Society.

We shall conclude this head of our annual review by

* Repository, Vol. X. p. 203.

stating, that a new edition, with additions, of that excellent work, the Surgical Dictionary, by Mr. Cooper, has recently been published. This book ought to be in the hands of every student and practitioner. We have also just seen the announcement of a work on Diseased Joints, by Mr. Brodie, which cannot fail of being valuable, on account of the quarter from which it comes.

MIDWIFERY.

As the operation of cutting into the pleura is the most prominent feature which the physiognomy of surgery for the passing year presents, so may Mr. Newnham's and Dr. Davis's cases of excision of the uterus be recorded as the principal occurrences in the annals of midwifery. Of Mr. Newnham's tract, describing the first of these operations, we have already pretty amply expressed our sentiments*; a tract which, we repeat, would be well worthy the attention of every young practitioner in midwifery, were it only that it contains the following very momentous, but too much neglected rule in obstetric practice. "It has often happened, (says Mr. N.) that the death of the patient has taken place from hæmorrhage, and the cause has never been discovered, till on examination, *post mortem*, the uterus was found inverted in the vagina. *In every instance, therefore, after the delivery of the placenta, one or more fingers of the operator should be introduced into the vagina, in order to ascertain that the uterus is not inverted.*"

Under the department of midwifery, we may notice a paper which has appeared lately in the Nouveau Journal de Médecine upon the subject of uterine polypi†. The writer gives an account of an operation that he performed upon a female, who had polypus in the uterus, which was at first mistaken for a cancer of that organ. The weight of the tumor he extracted was three pounds and a half; it was seventeen inches in circumference at its largest, and fifteen in its smallest part. Its pedicle was seven and a quarter. It was fibrous in its texture. M. Deguise observes, that it is but too common to consider polypine excrescences as cancerous affections; and informs us, that at the time he was principal surgeon to the Maison Royale de Charenton, he operated with success upon several women whose complaints had been thought to be cancerous and incurable. He remarks, that it is a general opinion, that after the operation for an uterine polypus the organ is incapable of

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* Repository, Vol. X. page 302.

† Observations de Polypes Uterines, par *F. Deguise*, père, Juillet. p. 192.

being impregnated; an opinion, however, which was proved to be erroneous, from what happened in his own practice. He applied a ligature, he says, in one instance to a polypus, which came away on the seventh day from such application, and in ten months afterwards he delivered the same female of a very fine and well-formed infant. The following statement of a polypus connected with pregnancy, we give in the narrator's own words: "M. Contamine, surgeon at Champigny, called upon me to assist him in a case of difficult labour. The woman had for some years been troubled with a discharge of blood from the vagina, which pregnancy did not put a stop to. The surgeon found a tumor from the womb about the magnitude of a good sized pear. He was desirous of getting it away, but his attempts at extracting it occasioned very violent pains. The tumor was then pushed back into the vagina. The arm of an infant immediately presented itself, and we delivered the woman of two children: we then proceeded to place a ligature upon the polypus, which came away on the eighth day. On the following year she was again delivered of another infant, without the occurrence of any thing at all untoward." M. Deguise further combats the position, that uterine polypi only occur between the ages of forty and fifty. Several cases, he says, have fallen under his observation, of this disease at a much earlier period; and he relates one instance of its happening in a woman of twenty-eight, in which he performed the operation successfully, and the subject of which afterwards enjoyed good health, and became the mother of children.

MEDICAL JURISPRUDENCE.

Upon this highly important but too much neglected department of the science, the medical literature of Britain, we regret to observe, exhibits nothing of particular interest or value, within the period which our Retrospect is destined to comprehend. Yet, from the early appearance of a second edition of Dr. Male's work*, and from the more frequent details, in our public journals, of cases illustrating different points of juridical medicine, and particularly the phenomena and morbid alterations resulting from the ingestion of poisonous substances, and the characteristic peculiarities which they respectively present in combination with various alimentary matters, we are willing to believe that the subject is beginning to attract, from the professional men of this country, somewhat more of that attention to which it is so eminently entitled.

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* Elements of Juridical or Forensic Medicine, &c. By G. E. Male, M.D.

Some very valuable cases and remarks on the poisonous effects of nitre; poisoning by oxymuriate of mercury, opium, and oxalic acid, respectively detailed by Mr. Butter*, Valentine†, Anderson‡, Dr. Hinnis‖, and Mr. Fraser§, have, during the present year, appeared in a contemporary Journal. With respect to these, we have nothing novel or particular to note, except an opinion advanced by Mr. Anderson, that "starch possesses the power of combining with part of the chlorine of the corrosive sublimate, in a similar way to the white of eggs" (albumen). Some experiments already made with it this gentleman proposes to repeat; and their results will, we doubt not, be communicated to the public with the liberality which evidently characterizes his present production. The white of eggs, as recommended by Orfila, was administered in the case recorded by Mr. Anderson, with obvious advantage.

In quitting this part of our subject, we would, however, solemnly protest against that reprehensible and indecorous interference, on the part of the Coroner and Jury, with the business of dissection, which has so justly excited the complaints of Mr. Valentine. Into his feelings on this occasion we can the more warmly enter, from having ourselves been more than once subjected to such interruptions, not less provoking and indecent in themselves, than prejudicial to the interests of justice and science. We therefore earnestly advise professional men firmly and invariably to resist the influence of this illiberal spirit upon the execution of their important functions; and to bear in mind the precept delivered by the Edinburgh Editor, in a judicious note upon the case, that it is both the duty and the *privilege* of a medical Practitioner to persevere deliberately in the examination of any body consigned to him for that purpose, until he is perfectly satisfied respecting the cause of death.

Contemplating the fatal errors which are almost weekly occurring in the incautious employment of the oxalic acid, as may be seen by a reference to the periodical publications of the present year, we do think it a duty incumbent on the legislature to direct their attention to this momentous subject; and to prohibit, under heavy penalties, the indiscriminate sale of this deleterious substance, and restrict the traffic exclusively to those persons whose intimate knowledge of its distinguishing characters and poisonous qualities would constitute a sufficient protection to the public against the dangers of its ignorant application or abuse.

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* Edinburgh Medical and Surgical Journal, Vol. XIV. page 34.
† Ibid. Vol. XIV. page 468. ‡ Ibid. page 474.
‖ Ibid. Vol. XIV. page 603. § Ibid. page 607.

Cases of poison by arsenic*, black hellebore†, and the introduction of corrosive substances into the vagina of the female‡, will be found recorded in the pages of our own Journal. To the last horrible and revolting method of effecting the destruction of a fellow-creature, we would particularly claim the notice of professional men; as it is not improbable that the wily assassin may, by this diabolical mean, occasionally prosecute his plans of ambition or revenge, without a suspicion of the real nature, or origin, of the symptoms having been excited in the mind of the unhappy victim, or of her medical attendant.

Notwithstanding toxicology is a subject which would seem to have been exhausted by the late valuable and elaborate treatise of Orfila; yet several publications upon poisons have recently made their appearance in France. One of these, the production of the celebrated Professor Chaussier‖, we have hitherto not succeeded in procuring. Of the three others, we shall present as correct an outline as our confined limits will allow.

The Medico-legal Manuel on Poisons, by Dr. Bertrand§, is the first which offers itself to our notice. It is intended as a vade-mecum to the Medical Practitioner. The effects of poisons introduced into the stomach, are distinguished by this author into direct, indirect, and sympathetic, according as the deleterious substance operates upon the membranes of the stomach itself, or upon the system by the medium of the absorbents, or the more mysterious route of nervous irritation, resulting from the connexion of all the other parts with the gastric organ. The different poisons he distributes into three classes, the escharotic, the irritant, and the narcotic, respectively comprehending the mineral acids, the alkalis, and several of the metallic salts; cantharides, various acrid vegetables, preparations of antimony and arsenic; and, lastly, the narcotics, as alcohol and its compounds. In speaking of the treatment of poisons, Dr. Bertrand seems to place his principal reliance on evacuating remedies. Any attempt to effect

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* Repository, Vol. IX. page 455. † Ibid. Vol. X. page 424.

‡ Ibid. Vol. IX. page 246. We may also here notice a very valuable paper, by Professor Orfila, on the Detection of Arsenic in Animal Substances; a translation of which has been given in the Repository, Vols. IX. and X. page 514 and 151.

‖ Contre-Poisons, ou Moyens reconnus les plus efficaces pour combattre l'Effet des diverses Espèces de Poisons. 12mo.

§ Manuel Medico-legal des Poisons introduits dans l'Estomac, et des Moyens Thérapeutiques qui leur conviennent; par C. A. H. A. Bertrand, M.D. 8vo.

the decomposition of poisonous substances in the stomach by chemical agents he decries as commonly useless or injurious, except it be by the ingestion of *finely pulverized charcoal*, which he extols as an antidote, to the exclusion of almost all others. Our readers will probably recollect that, while Dr. Bertrand, on the one hand, has twice published memoirs for the express purpose of recommending charcoal as an antidote to the effects of arsenical, mercurial, coppery, and other mineral poisons, Orfila has proved, by direct experiment, that no antidotic properties whatever are possessed by this substance. On the whole, the work of Dr. Bertrand presents, with respect to the operation of the various poisons on the animal organs, and the chemical phenomena which they offer in combination with other agents, many glaring errors and inconsistencies. Nor are we aware of any advantage that could accrue to the author, or to the science of which he is a professor, from the publication of the present work.

Of an Essay on Toxicology, by Dr. Montgarny*, we are enabled to pronounce a more favourable opinion. Yet even in this nothing of particular interest or novelty will be found by those who are familiar with the production of Orfila. By this distinguished writer, sulphuret of potash, previously so often recommended and employed as an antidote, was first ranked among the corrosive poisons: and in the work of Dr. Montgarny we meet with the following important case, illustrative of its deleterious operation:—A lady, suffering from pyrosis, died in a few minutes after having swallowed a few mouthfuls of an aqueous solution of sulphuret of potash. The fatal event was preceded by faintness, convulsions, and the issue of a yellowish froth from the mouth. On dissection the stomach was found very much contracted; its internal membrane lined with sulphur, and of a brightish red colour; and its capillary system, in some points, minutely injected. The duodenum was red and inflamed, particularly towards its duodenal extremity. The superior portion of the small intestine, in about a fourth of its extent, presented the same appearances. The membrane of the mouth, pharynx, and bronchia, were whitish and discoloured, but displayed no change of structure. The lungs were soft, not crepitous, and gorged with black, livid, and very fluid blood. Dr. Montgarny erroneously attributes the fatal event, in this case, to the action of the sulphureted hydrogen extricated in the sto-

* Essai de Toxicologie, considérée d'une manière générale dans ses Rapports avec la Physiologie hygiénique et pathologique, et specialement avec la Jurisprudence Médicale; par Tite Harmand de Montgarny, M.D. &c. 8vo. Paris.

mach, in consequence of the decomposition of the poison by the acids copiously administered for that purpose: whereas death was evidently determined by the irritating effect of the sulphuret itself upon the membranes of the stomach, or by its operation on the brain and lungs. It is well known that a large quantity of sulphureted hydrogen may be introduced, with impunity, into the stomach. The remaining few points in this Essay, which appear worthy of particularization, are, Dr. Montgarny's preference for the employment of albumen in cases of poisoning by nitrate of silver, instead of the muriate of soda recommended by Orfila; his plausible objections to any decisive inference respecting the poisonous properties of any suspected substance, from its ingestion having been followed by death in animals where the œsophagus has been tied to prevent its premature rejection; and his proposal to employ, as a test for tartrite of antimony, the tanning principle extracted from nutgalls by means of ether, instead of the alcoholic infusion of the nut. The process consists in adding the tannin to a solution of the antimonial preparation; and is certainly entitled to the attention of those who feel that interest in the important study of toxicology which it is so well calculated to excite.

Diminutive in size, but far more important in its substance than the two preceding, is the volume by Professor Orfila*; with a slight and hasty reference to which, our Retrospect of the Progress of Medical Jurisprudence, during the present year, must be concluded. The very name of Orfila will stamp upon it, in this enlightened land, no ordinary interest and consideration. It may be regarded as a supplement to the author's great work on Toxicology; and is intended to convey to the public, in clear and intelligible language, divested as much as possible of technical phraseology, the most important information which this latter contains. In addition to the popular directions respecting the discrimination and remedy of the different poisons, Professor Orfila moreover indicates every material circumstance relative to the treatment of the various kinds of asphyxia; to the means requisite for the recovery of children apparently still-born; the characters which distinguish real from apparent death; the management of burns; and, lastly, the method of detecting the adulteration of wines. Upon the utility of such a work, and the happy influence of which it may be productive in the preservation of human life and health, upon those sudden and distressful emergencies which are daily occurring in situations

* Secours à donner aux Personnes Empoisonnées ou Asphyxiées, &c. Par M. P. Orfila, &c. 12mo. Paris.

remote from the residence of any professional adviser, it were needless to descant. Almost equally superfluous will it be to add, that this little work is executed with the spirit, perspicuity, and talent, which characterize all the former productions of its celebrated author. To the advice given by the Committee appointed to examine the manuscript, in an official report prefixed to the volume, we most cordially subscribe: they exhort the French Government to adopt all the measures necessary for its circulation through the different classes of society. In this country its diffusion will, we trust, be accomplished without any such interference. An English translation is already on the eve of its appearance: so that no apology for neglect to acquire a knowledge of its contents will be left. Such neglect, indeed, would be culpable in the man of liberal education: while to the practitioner of medicine it cannot fail to attach criminality and disgrace.

The preceding sketch, however slight and imperfect, will sufficiently evince that Medical Jurisprudence, tardy as is its progress in this country, remains not stationary, or neglected, among our neighbours. The scientific productions of Germany, were they equally accessible to us, would, we are convinced, display even greater zeal, and a more rapid march, in the road of improvement. Would that any thing we could say might impress upon the minds of our countrymen a conviction of the importance of the study, and incite some one, qualified by talent and knowledge for the construction of a comprehensive and systematic work on Medical Jurisprudence, to fill up that unseemly void, which, notwithstanding the able but too limited effort of Dr. Male's pen, still exists in the medical literature of Britain.

Were it consistent with our limits we might introduce into this general sketch the more prominent discoveries, in *natural history and botany*, that are allied to medical science. We had, indeed, intended to have noticed from the scientific journals such subjects as the potassal plants, the lichens, the natural history, &c. of the potatoe, manna, hemlock, the two species of hellebore, a newly discovered febrifuge bark, and several other particulars at once connected with natural history and medicine. This intention, however, we relinquish for the present for want of room and time; and we do so the more willingly, since an individual, well furnished with information in this pleasing, important, and too much neglected branch of science, has undertaken to enrich our pages henceforth with regular contributions of matter bearing upon these points. The labours of this gentleman will commence with

the year, and will then be continued monthly. We understand that the first subject on which he intends to treat is that of intestinal worms.

Medical Topography, also, might constitute another head of division, had we space for its discussion. We may just hint, that it would be gratifying to us were our correspondents to follow the scientific and eloquent example set before them by two able writers, who have furnished us with matter on this particular since our last Retrospect. The papers of Dr. Walker*, we are persuaded, none will read without pleasure and interest, who love to witness the combination of elegant composition with a rich fund of information: and Mr. Mansford, also, has favoured us with a paper† partly bearing upon this subject, which, though in some measure controversial, is courteous in expression, and pregnant with every thing that is admirable in materials. On Dr. Burrows's paper‡, the momentous nature of its subject matter, and the ability with which it is executed, we need make no comments; and we shall not here allow ourselves further to enlarge, than to notice the small and pleasing volume which our excellent correspondent, Mr. Mansford, has just put forth, on the Influence of Situation in Pulmonary Consumption, &c.‖ His inquiries have led him to the inference, that the density or levity of the air are important points of consideration in selecting places for consumptive invalids. He thinks this particular has been too generally overlooked, and that the question of temperature alone has too much guided our opinions on the salubrity of place and climate. We shall certainly not lose sight of this very interesting little volume when we resume our analytical functions. For the present, suffice it to say, that no man of taste will peruse Mr. M.'s tract without pleasure and interest, although he may hesitate to follow the author to every extent of his reasonings.

CHEMISTRY.

Why have we left the consideration of this most interesting branch of science till every other has been dismissed? To confess the truth, we enter upon this department of our engagement with fear and trembling: and paradoxical as the assertion may appear, we have been apprehensive at once of

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* Repository, Vol. X. pp. 1 and 441.

† Ibid. p. 372. ‡ Ibid. p. 266.

‖ An Inquiry into the Influence of Situation on Pulmonary Consumption, and on the Duration of Life, illustrated by Statistical Reports. By John G. Mansford, Member of the Royal College of Surgeons of London.

saying on it too much and too little. Indeed, to do any thing like justice to an annual review of chemistry, as chemistry is now constituted, would demand an extent of knowledge and a compass of pages far beyond our utmost pretensions. By placing, then, the subject under the last head of our divisions, we are freed from the apprehension of extending our remarks beyond a proportionate limit, as we are now shortly in expectation of our printer's mandate, "Go no further."

Chemistry is every day approaching nearer to, and there is a prospect that it may ere long actually enter, the circle of what the French call the exact sciences; and to which we are more accustomed to attach the word demonstrative. It was our countryman, Black, whose commanding genius first said to the scattered elements and isolated facts and jarring doctrines of this division of knowledge—"Be united, and be consistent." Lavoisier caught the spirit of the new impulse, and, with an energy truly Gallic, almost overreached the mark of absolute demonstration; but even by that very boldness did good to the cause. Davy followed the track marked out for him by his enterprising predecessors; and with the assistance of his able contemporaries, whom even to name would be to fill a page, the investigations of the chemist, which commenced with the dreams and conceits of alchymy, now bid fair almost to rival in precision the pursuits of the geometrist.

The main points of interest which the passing year has unfolded, in reference to chemical research, may be stated under the heads of the laws of temperature, as connected with those of electricity—the fuller developement of the most curious and important doctrine of definite proportions—the circumstances regulating the phenomenon of flame, and the agitation of the still unsettled points of chlorine and muriatic acid. Besides these leading and fundamental principles, the year has been enriched by the discovery of several new metallic matters, as well as acid and alkaline substances. Animal analysis also, in the able hands of Prout and others, is every day making rapid progress; and the several journals, both foreign and English, have furnished us with excellent papers on the chemical composition of many vegetable substances, such as ipecacuanha, cinchona, rhubarb, almonds, potatoe, nux vomica, rice, barley, and pellitory.

In the Philosophical Magazine the reader will find a series of Essays* by Mr. Allan; rich in ingenuity of argument, and abounding in masterly views on the great subject of chemical agency, as effecting changes in the modes of

* Essays on Chemical Philosophy.

existence of physical matter. These essays all go upon the principle, that in every change of existence that matter is capable of undergoing, caloric is given out or absorbed in the form of either electricity, of galvanism, of caloric, or of light. Respecting the important question which has recently agitated the philosophical world, and which has been proposed as a prize in one of the societies abroad; viz. In what does the difference consist between galvanism and electricity? Mr. Allan observes, "in electricity we contrive, by mechanical means, to collect the loose and uncombined quantity from the earth and surrounding medium; and this we do in circumstances in which it has nothing to act upon, as free from moisture of any kind as possible; in fact, from every thing readily soluble in heat or in this power. I would, therefore, (he says) define electricity to be the object of science, which treats of the mechanical and natural means of separating this *grand agent* from some of its combinations, and of ascertaining its actions in this state."—"In galvanism, on the other hand, this solvent power, this electric fire, is produced in circumstances in which it has *substances* to act upon; substances which are most readily dissolved in it; substances, in fact, which seem to form the grand medium between this *power and passive substances,* and which are partially dissolved in it. And hence I define galvanism as the electrie fire, or *grand agent,* only *partially* separated from its combinations; by which I refer principally to oxygen and hydrogen." After illustrating this principle, by referring to the circumstances in which the chemical agency of galvanism appears more conspicuous than that of electricity, he adds, "thus we perceive that when *the grand agent of nature* is *more perfectly* separated from its combinations it is ELECTRICITY, when partially separated GALVANISM." Of these views and principles we have a more ample illustration and defence as the author proceeds in his investigation; and the whole inquiry is conducted with much philosophic acumen. Hypothetical, of course, part of it must be: but how different are the hypotheses of the present from those of former times, when science was a sort of poetry, and dealt in abstractions and inventions!

In addition to the great and momentous influence of electric laws in determining the circumstances of chemical combination, that most important principle is almost hourly developing itself of the union of ultimate particles in definite proportions of atoms. Whether the merit of having first announced this singular and beautiful law of chemical combination rest with Mr. Higgins, or Mr. Dalton, is not of much consequence to the interests of science. To disin-

terested observers it would, however, in our opinion appear, that to the former belongs the credit of having primarily advanced the principle, and that the latter has more fully brought it out into distinct expression and application.

Another dispute still agitates the world of chemistry; namely, Whether chlorine consists of a base united to oxygen? or, Whether, in fact, it be oxygenated muriatic acid, according to the Lavoisierian theory? or, Whether it be an elementary body? The principal abettors of the old theory, namely, that chlorine is oxygenated muriatic acid, are Drs. Ure and Murray, who adduce facts in support of their hypothesis, which if not quite satisfactory in re-establishing the old theory, are certainly not very easily reconcileable with the new. Dr. Murray's experiment of procuring water from muriate of ammonia, formed by the combination of *dry* ammonia and muriatic acid, seems pretty strongly to bear upon the question of the compound nature of chlorine; for, to use the words of this most able chemist,—"Ammonia containing no oxygen, if water is obtained from its combination with muriatic gas, we obtain a result which cannot be accounted for upon the proposed hypothesis, but must be regarded as a proof of the presence of water in the acid gas. And this again affords a proof of the presence of oxygen in oxymuriatic gas."

The abettors of the chlorine theory, it is well known, account for the production of the water, in this instance, from its absorption by the salt from the atmosphere; and Sir Humphrey Davy affirmed, that when the salt is formed from a combination of the gases in a *close* vessel, and heated without exposure to air, not the slightest trace of water appears, even when the experiment is performed on a large scale. Dr. Murray has, however, met this objection by a series of experiments, proving that the salt absorbs no moisture from the air, in the common state of dryness and temperature in which the experiment is performed, and that water is still obtained in the experiment alluded to, even when the salt has been formed and heated without air having been admitted: and from the whole, he considers "the existence of water in muriate of ammonia, and of course in muriatic gas, as demonstrated." Dr. Ure likewise comes to the same inference; and an ingenious paper of his (published originally in the Transactions of the Royal Society of Edinburgh, and inserted in the Philosophical Magazine*), is concluded in the following words:—"By resorting to the theory of Lavoisier and Berthollet, we get rid of those mysterious and

* For August, p. 101.

almost incomprehensible transformations which a drop of water has lately been conceived to produce on some of the muriates. Dried sea-salt, for example, when viewed as a compound of chlorine and sodium, is no sooner moistened, than a portion of water resolves itself into oxygen and hydrogen; whence result soda and hydrochloric acid, and a solution of muriate of soda. Expel the drop of water, we have a chloride of sodium once more; and we may repeat this invisible change for an indefinite number of times by the addition or subtraction of a little moisture. Thus, we must consider dry salt and moist salt to be bodies widely and essentially different; the former containing neither alkali nor acid, while the latter contains both. This supposition, which the chloridic theory compels us to make, must surely be reckoned somewhat violent."

We have stated above, that the last few months have proved pregnant with the discovery of many new discoveries, as well of minerals as of acid and alkaline substances. One of the most interesting of these to the medical philosopher is that of the new principle in urine, named by Brugnatelli erythric acid, and obtained by treating uric with nitric acid. The editors of the Annales de Chimie*, in alluding to the experiments of Brugnatelli and Prout in reference to this particular, express themselves in the following manner:— "We were not convinced of the existence of this new acid principle described by Brugnatelli, from having attended to his experiments; but those of Prout have satisfied us of its presence." The acids obtained by these respective chemists are, however, different; and it appears to us that Brugnatelli's is not pure. The fine purple substance produced by the action of nitric acid and heat upon the uric acid, and which has been a long time known to chemists, Dr. Prout has proved to be a substance composed of a peculiar acid and ammonia. By this chemist it is named the purpuric acid— a name suggested to him by Dr. Wollaston. Its component parts are hydrogen, carbon, oxygen, and azote. Dr. Prout has suggested the probability of this acid being the base of several colours, both in the animal and vegetable world. The sediment, which is deposited in the urine during fever, appears to consist of the purpuric acid with ammonia. Dr. Prout further imagines the possibility of our being able to make use of some of the salts formed of the purpuric acid in painting and dyeing, since it seems to show a particular affinity for animal matter. From the ingenuity and persevering industry of this able and minute chemist, we may anti-

* See Annales de Chimie, Vol. VIII. p. 201.

cipate many more important results on the subject of animal chemistry.

With respect to the composition of vegetable matter, we meet with a memoir in the Journal de Pharmacie *, extracted from a Strasbourg journal, and written by Mr. Godefroy, who divides the vegetable creation into four classes, and with Gay-Lussac, and Thenard, states the following peculiarities of each division :—

1. Those parts of plants which contain oxygen in too great a proportion to convert their hydrogenous portions into water. (The acids of vegetables.)

2. Those which contain these two principles in the exact proportion of water. (The gum, ligneous part, &c.)

3. Those which contain an excess of hydrogen. (Volatile and fixed oils and resins.)

4. Those the constituent principle of which is azote. (Gluten, &c.)

In the detail of these several principles, as applied to the qualities of vegetables, the reader will find a good deal of what is interesting.

Here, however, we are compelled to stop; and we find that to do any thing like justice to our endeavours at giving an analytical notice of the chemical discoveries of the year, we must allow more space than it was originally our intention to give. And we have therefore come to the determination of presenting to the reader next month, in the form of an appendix to this annual review, a yearly retrospect of chemistry. We shall occupy the room which our printer tells us is left for the completion of the Number by recurring to the topic of medical theory and practice; and presenting to our readers an abridged translation of a paper which we have met with in the Nouveau Journal de Médecine, and which is in unison with our own feelings on the subject of medical system.

The article to which we allude is a review of a book, entitled, Practical Reflections on the Dangers of System in Medicine. We find, say the reviewers, many medical practitioners followed by *phantoms* which appear to haunt them in all their undertakings; some being the prey of adynamic, others of inflammatory principles: one being led to excitants without measure—the other being animated by a sort of sanguinary fury, (d'une espèce de fureur sanguinaire). In the work reviewed are found the particulars of a case in point. Madame V. D. was attacked with nervous fever, for which

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* Pour Octobre, p. 463.

she took cinchona under the direction of M. Jadelot. Her fever being aggravated, and bowels rendered torpid by the employment of the medicine, M. B. was called in, who ascribed every thing to a chronic inflammation of the stomach, and put her immediately upon a slender and reducing plan of diet, which aggravated all her nervous symptoms. M. B. now pronounced the case to be decided and active inflammation, forbad all kind of food whatever, and ordered cold applications to the epigastrium. The symptoms continued to be aggravated. Still, however, the same regimen was persisted in. Leeches were now ordered; but, as the menses made their appearance at this time, they were deferred. So much the better for the patient, notwithstanding the prognosis and advice of her present doctor. M. Laroque was called in the night, who pronounced the disorder spasmodic. In defiance of this last opinion, M. B. had the leeches put on. In four hours from their application alarming symptoms supervened; palpitations, cold extremities, and other signs of extreme debility. The writer of the pamphlet was now summoned, who prescribed an opiate clyster, with a diet a little more nourishing. The next day the patient's head was much disturbed, which M. B. (his own head still running on inflammation) (toujours la phlegmasie en tête,) ascribed to the nutritive diet: he again ordered leeches, which had the same effect as before. Now a further consultation was required. M. Dubois, the last called in, said, that the principal ailment was want of aliment, and ordered nutritive food. The fever was again augmented; and now taking on an intermittent form, bark was prescribed, and a little more nourishment. Things seemed going on well; the diet was permitted to be more and more nourishing, and the patient was approaching convalescence.

But the menses coming on, she was put upon water and low regimen, which again brought on her bad symptoms. A new consultation was demanded, which consisted of Landré, Beauvais, Jadelot, and Husson. They all agreed upon the propriety of a nutritive regimen, under which the patient gradually recovered.

We shall add, say the Reviewers, no comments of our own on this instructive case, which shows more than any reasoning could, the folly and danger of systematizing to an unwarrantable extent.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

NOTICES OF LECTURES.

Dr. Davis will commence a fresh Course of his Lectures on the Theory and Practice of Midwifery, and on the Diseases of Women and Children, on the 14th of December.

Mr. Clarke's and Mr. Blagden's Lectures on Midwifery and the Diseases of Women and Children will begin on Friday, December 4th. For particulars, apply to Mr. Clarke, 10, Saville Row; or to Mr. Blagden, 13, Duke Street, St. James's.

LITERARY NOTICES.

Mr. Parkinson is preparing for the press a Familiar Introduction to the Study of Fossils.

Mr. Coar's edition of the Aphorisms of Hippocrates, in Greek, Latin, and English, is now in a state of forwardness, and will be published within a few weeks. Gentlemen desirous of adding their Names to the List of Subscribers are requested to send them to the Publishers, Cox and Son, St. Thomas's Street, Borough.

Shortly will appear, in one vol. 8vo. Practical Observations on the Construction and Principle of Instruments for the Removal of Muscular Contraction of the Limbs, Distortion of the Spine, and every other Species of Personal Deformity. By John Felton, (late of Hinckley), Surgical Mechanist to the General Institution for the Relief of Bodily Deformities, Birmingham.

In a few weeks will be published, No. I. of a New System of Medical Botany, handsomely printed in royal octavo, with Plates coloured according to Nature, and Botanical Descriptions of each Plant, giving the place of its Growth, Medical Properties, Dose, &c. The Work is intended to comprise all the Plants now used by Medical Practitioners in the Materia Medica of the London, Edinburgh, and Dublin Pharmacopœias.

Preparing for publication, Observations on Inflammation of the Mucous Membrane of the Respiratory Organs, illustrative of the Pathology and Treatment of Bronchial Inflammation, Croup, Hooping-cough, Measles, Catarrh, and those Affections resembling Pulmonary Consumption, &c. &c. &c.; exemplified by Cases, Dissections, and Coloured Engravings of the Morbid Appearances. By Thomas Alcock, Surgeon.

Shortly will be published, in 8vo., Cases, with Observations on Wry Neck, on the Reduction of Luxation of the Shoulder-joint, on the Operation for Hare-lip, on Cartilaginous Substances of the Knee-joint, on Aneurism, and on the Use of the Extract of Strammonium. By John Kirby, A.B., Member and one of the Censors of the Royal College of Surgeons in Ireland, &c. &c. &c.

A METEOROLOGICAL TABLE,

From the 21st of OCTOBER to the 20th of NOVEMBER, 1818.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.	Barometer. Min.	Therm. Max	Therm. Min.	Rain Gauge.	Winds.	Weather.
21	29 82	29 74	58	44	06	E.SE.	1 Cloud... 2 Sun... 4 Rain
22	29 75	29 72	51	45	02	E.	1 Rain. 2 Cloud...
23	29 82	29 82	49	40		E.	1 Cloud...
24	29 82	29 81	46	41	10	EbN.	1 Cloud... 4 Rain..
25	29 80	29 76	52	47		ENE.	1 Cloud...
26	29 76	29 76	60	45		SE.	1 Sun..
27	29 76	29 69	63	45		SSE.	1 Mist... 2 Sun...
28	29 82	29 73	63	45		SW...	1 Mist.. 2 Sun..
29	29 94	29 89	61	50		W..	1 Sun... 2 Cloud...
30	29 74	29 58	58	48	04	SW.	1 Cloud... 3 Sun. 4 Rain.
31	29 55	29 54	58	42	01	W.	1 Cloud.. 2 Show. & Sun..
1	29 54	29 43	56	44		SW..	1 Sun... 2 Cloud..
2	29 38	29 30	59	48	02	SW....	1 Sun.. 4 Rain.
3	29 30	29 20	56	46	13	SSW.	1 Rain.. 2 Sun..
4	29 13	29 13	53	46	05	SE.	1 Rain. 2 Cloud...
5	29 21	29 20	51	44	1 08	SW.N..	1 Cloud... 2 Rain....
6	29 36	29 32	49	45	78	N..	1 Rain....
7	29 53	29 48	52	44	02	NE.	1 Cloud.... 4 Rain.
8	29 61	29 60	53	44		NNW.	1 Cloud... 2 Sun.
9	29 69	29 66	52	41	04	N.E.	1 Mist... 2 Cloud.. 4 Rain.
10	29 54	29 48	50	44	43	SE..	1 Cloud... 2 Sho. & S. 4 R....
11	29 50	29 44	47	43	13	SE..	1 Rain..
12	29 38	29 33	48	43		SE..	1 Cloud...
13	29 33	29 25	49	46	12	SE..	1 Rain.. 2 Mist...
14	29 04	29 03	54	41	09	SE.SW.	1 Mist... 2 S. 4 R. & M..
15	29 37	29 16	51	43	36	W..	1 Sun.... 2 Sun.. 4 Rain....
16	29 23	29 04	57	40	07	S..SW...	1 Cloud... 2 Sun.. & Shows.
17	29 58	29 54	47	32		W..	1 Sun...
18	29 61	29 57	48	36		W.	1 Sun..
19	29 59	29 59	55	39		SW.	1 Sun..
20	29 55	29 49	48	39		SSE.	13 Cloud.. 2 Sun. 4 Starl.

The quantity of rain during the month of October was 1 inch 88-100ths.

Observations on Diseases at Richmond.

The disorders under treatment this period were Anasarca, Cephalalgia, Colica, Cynanche tonsillaris, Diarrhœa, Dyspepsia, Erysipelas, Febris catarrhalis, Febris continua, Gastrodynia, Obstipatio, Otalgia, Phthisis pulmonalis, Podagra, Rheumatismus acutus, Variola, and Vertigo. A few more cases of modified Small-pox have appeared after vaccination, which cannot be distinguished from Varicella.

THE METEOROLOGICAL JOURNAL,

From the 20th of OCTOBER to the 19th of NOVEMBER, Inclusive.

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.			Barom.				De Luc's Hygrom. *Dry.*		*Damp.*		Winds.		Atmo. Variation.		
20		.	58	65	53	30	05	30	17			16	17	SE	SSE	Fog	Fine	—
21		,05	54	60	53	30	09	30	05			20	19	E	NE	Fog	Fine	—
22			54	59	51	29	97	29	95			17	17	E	E	Fine	—	—
23			53	60	49	29	97	29	97			17	19	E	E	Clo.	Fine	—
24			61	60	47	30	00	30	00			20	13	NE	NNE	Fine	Clo.	Rain
25		,15	55	63	43	29	99	29	97			21	17	E	E	Fine	—	—
26			47	61	43	30	00	30	01			19	21	NE	NE	Fine	—	—
27			47	59	49	30	00	30	05			20	20	E	E	Fine	—	—
28			54	63	50	30	10	30	17			16	18	SW	SW	Fine	—	—
29			53	64	50	30	25	30	31			18	17	SW	SW	Fog	Fine	—
30		,02	52	61	48	30	25	30	17			15	14	SW	SSW	Fog	Fine	—
31		,03	50	60	50	30	00	30	00			12	14	SW	WSW	Fog	Fine	—
1			53	61	48	29	95	29	92			16	19	W	W	Fog	Fine	—
2			53	59	50	29	85	29	87			15	10	W	W	Clo.	Fine	—
3			54	60	47	29	79	29	75			9	10	SW	SW	Fog	Fine	—
4			49	61	48	29	71	29	69			7	5	WNW	NW	Fine	—	—
5			50	59	44	29	77	29	81			5	9	WNW	W	Fine	—	—
6			48	55	42	29	80	29	85			11	10	SW	SW	Fine	—	—
7			46	56	40	29	88	29	94			10	10	SSW	SW	Fine	—	—
8			45	56	39	29	90	29	94			12	14	E	E	Fine	Clo.	—
9			43	55	40	29	94	30	01			13	12	SE	E	Rain	Fine	Clo.
10		,09	44	53	41	30	00	29	95			17	14	S	SW	Fog	Rain	Clo.
11		,07	45	55	40	29	87	29	89			14	13	SW	W	Fog	Clo.	Rain
12		,10	46	59	43	29	86	29	79			15	17	W	SW	Rain	Clo.	—
13		,08	46	57	45	29	70	29	63			16	18	SSE	SE	Fog	Rain	Clo.
14		,08	49	58	47	29	57	29	65			21	20	SE	E	Rain	—	—
15		,17	49	55	45	29	64	29	60			11	16	SSE	SE	Fine	Rain	—
16		,05	50	54	47	29	63	29	70			15	12	SE	SE	Rain	—	Clo.
17		,05	50	52	47	29	76	29	98			17	16	SE	SE	Clo.	Fine	Clo.
18			48	48	45	30	04	30	07			16	16	SE	SE	Fog	Clo.	Fine
19			49	52	40	30	07	30	01			16	16	SE	SE	Fog	Clo.	Fine

The quantity of rain fallen in the month of October is 1 inch and 43-100ths.

A REGISTER OF DISEASES

Between OCTOBER 20th and NOVEMBER 19th, 1818.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	5		Furunculus	1	
Abscessio	12		Gastrodynia	17	
Amenorrhœa	12		Gonorrhœa *pura*	15	
Anasarca	19	4	Hæmatemesis	2	
Anorexia	2		Hæmaturia	1	
Aphtha *lactentium*	7		Hæmoptöe	4	
Apoplexia	9	7	Hæmorrhois	8	
Ascites	8	2	Hemiplegia	2	
Asthenia	12		Hepatalgia	1	
Asthma	52	2	Hepatitis	14	2
Atrophia	2		Hernia	4	
Bronchitis *acuta*	3	1	Herpes *Zoster*	1	
——— *chronica*	2		——— *labialis*	2	
Cancer	1		Hydrocele	3	
Carbunculus	2		Hydrocephalus	3	
Cardialgia	14		Hydrothorax	6	5
Catalepsis	1		Hypochondriasis	5	
Catarrhus	33		Hysteralgia	3	
Cephalalgia	6		Hysteria	8	
Cephalæa	1		Icterus	3	
Chorea	3		Impetigo *figurata*	1	
Cholera	15	1	——— *scabida*	1	
Colica	9		——— *rodens*	3	
Convulsio	7	2	Ischias	2	
Cynanche *Tonsillaris*	22		Ischuria	4	
——— *maligna*	2		Lepra	4	
——— *Parotidea*	4		Leucorrhœa	11	
Diarrhœa	34		Lithiasis	4	
Dolor lateris	1		Mania	9	
Dysecoea	2		Menorrhagia	13	
Dysenteria	9		Miliaria	7	
Dyspepsia	32		Morbi Infantiles*	37	
Dyspnœa	6		——— Biliosi*	18	
Dysphagia	2	1	Nephralgia	1	
Eczema	1		Obstipatio	13	
Eneuris	4	1	Odontalgia	8	
Enteritis	3	1	Ophthalmia	18	
Entrodynia	6		Otalgia	4	
Epilepsia	2		Palpitatio	2	
Epistaxis	8		Paralysis	7	1
Erysipelas	7		Paronychia	2	
Erythema *nodosum*	2		Peripneumonia	7	
Febris *Intermittent*	14		Peritonitis	13	1
—— *catarrhalis*	77		Pertussis	12	
—— *Typhus mitior*	30	3	Phlogosis	3	
—— *Typhus grav.*	5	1	Phrenitis	2	
—— *Synochus*	67	4	Phthisis Pulmonalis	24	6
—— *Puerpera*	3		Physconia	1	1
—— *Remit. Infant.*	12	2	Plethora	2	
Fistula	6		Pleuritis	17	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Pleurodyne	3		Scrofula	12	
Pneumonia	13		Spasmi	2	
Podagra	6		Splenitis	3	
Porrigo *larvalis*	4		Strictura	5	
——— *favosa*	2		Strophulus *intertinctus*	4	
Prolapsus	2		Syncope	1	
Prurigo *mitis*	5		Syphilis	29	1
——— *senilis*	5		Tabes Mesenterica	4	1
Raphania	1		Vaccinia	29	
Rheuma, *acutus*	21		Variola	10	
——— *chronicus*	42		Vermes	16	
Roseola	1		Vertigo	17	
Rubeola	4		Urticaria *febrilis*	3	
Scabies	44				
Scarlatina *simplex*	5		Total of Cases	1252	—
——— *anginosa*	6		Total of Deaths	50	
Scirrhus	1				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

Fevers are still prevalent, and we still find very vigorous purging with elaterium, in the first instance, to answer extremely well in arresting their progress.

Very copious bleedings, too, are reported by some practitioners as so effectual, when used at the fever's onset, or before its actual establishment, as in many cases almost to supersede the necessity of much further assistance from medicine.

Relapses have been noticed as of frequent occurrence in the instances of the late epidemic. To what are these to be attributed? Are we to ascribe them to the influence of the atmosphere, to any thing in the nature of the disorders themselves, or to the vigorous plans of treatment which are adopted for their removal? These relapses are more common in hospital, than in private practice, and one reason of their frequency may be the state of the air in the interior of these public Establishments, which are often deficient in their arrangements for convalescence. It has recently become the fashion to consider the state of recovery from fever, as one which will do better without than with the interposition of the cinchona bark. Has the prevalence of this negative practice any thing to do with the admitted fact of frequent relapse?

A case has lately fallen under our notice, in which the oil of turpentine, in doses of an ounce and a half, taken without any admixture, proved effectual in procuring the expulsion of several very long and large lumbrici teretes. This case is thus referred to because we believe the medicine in question is principally regarded as a vermifuge in application to tænia.

Quarterly Report of Prices of SUBSTANCES *employed in* PHARMACY.

		s.	d.
Acaciæ Gummi elect.	lb.	5	0
Acidum Citricum		32	0
—— Benzoicum	unc.	6	0
—— Sulphuricum	P. lb.	0	9
—— Muriaticum		2	0
—— Nitricum		4	0
—— Aceticum	cong.	5	0
Alcohol	M. lb.	5	6
Æther sulphuricus		10	6
—— rectificatus		12	0
Aloes spicatæ extractum	lb.	7	6
— vulgaris extractum		6	0
Althææ Radix		1	6
Alumen		0	6
Ammoniæ Murias		2	6
—— Subcarbonas		4	0
Amygdalæ dulces		3	6
Ammoniacum (Gutt.)		14	0
—— (Lump.)		7	6
Anthemidis Flores		3	0
Antimonii oxydum		7	0
—— sulphuretum		1	3
Antimonium Tartarizatum		8	0
Arsenici Oxydum		3	0
Asafœtidæ Gummi-resina	lb.	8	6
Aurantii Cortex		7	6
Argenti Nitras	unc.	7	0
Balsamum Peruvianum	lb.	30	0
Balsamum Tolutanum		24	0
Benzoinum elect.		12	0
Calamina præparata		0	6
Calumbæ Radix		4	0
Cambogia		9	0
Camphora		7	6
Canellæ Cortex		6	0
Cardamomi Semina opt.	lb.	10	6
Cascarillæ Cortex		3	6
Castoreum	unc.	6	0
Catechu Extractum	lb.	4	6
Cetaceum		4	0
Cera alba		4	0
—— flava		3	10
Cinchonæ cordifoliæ Cortex (yellow)		8	6
—— lancifoliæ Cortex (quilled)		12	0
—— oblongifoliæ Cortex (red)		16	0
Cinnamomi Cortex		20	0
Coccus (Coccinella)	unc.	3	0
Colocynthidis Pulpa	lb.	16	0
Copaiba		6	0
Colchici Radix		3	6
Croci stigmata	unc.	5	6
Cupri sulphas	lb.	1	4
Cuprum ammoniatum		14	0
Cuspariæ Cortex		3	6
Confectio aromatica		10	0
—— Aurantiorum		3	6
—— Opii		6	0
—— Rosæ caninæ		2	0
—— Rosæ gallicæ		2	4
—— Sennæ		1	8
Emplastrum Lyttæ		7	0
—— Hydrargyri		3	6
Extractum Belladonnæ	unc.	2	6
—— Cinchonæ		3	6
—— Cinchonæ resinosum		6	0
—— Colocynthidis		4	0
—— Colocynthidis comp.		2	0
—— Conii		0	9
—— Elaterii		36	0
—— Gentianæ		0	8
—— Glycyrrhizæ	lb.	6	0
—— Hæmatoxyli	unc.	0	6
—— Humuli		1	6
—— Hyoscami	unc.	2	0
—— Jalapæ	2s. 0d. Res.	3	6
—— Opii		4	6
—— Papaveris		1	6
—— Rhæi		2	0
—— Sarsaparillæ		2	6
—— Taraxaci		0	9

		s.	d.
Ferri subcarbonas	lb.	1	4
— sulphas		1	6
Ferrum ammoniatum		5	6
—— tartarizatum		5	0
Galbani Gummi-resina.		12	0
Gentianæ Radix elect.		1	2
Guaiaci resina		10	0
Hydrargyrum purificatum		6	6
—— præcipitatum album		9	0
—— cum creta		6	6
Hydrargyri Oxymurias	unc.	0	9
—— Submurias		0	9
—— Nitrico-Oxydum		0	9
—— Oxydum Cinereum		1	6
—— Oxydum rubrum		6	0
—— Sulphuretum nigrum		0	4
—— —— rubrum		0	9
Hellebori nigri Radix	lb.	3	0
Ipecacuanhæ Radix		20	0
—— Pulvis		22	0
Jalapæ Radix		7	0
—— Pulvis		8	0
Kino		10	6
Liquor Plumbi subacetatis	M. lb.	1	8
— Ammoniæ		3	6
— Potassæ		1	6
Linimentum Camphoræ comp.		6	0
—— saponis comp.		4	0
Lichen	lb.	1	4
Lyttæ		12	0
Magnesia		10	6
Magnesiæ Carbonas		4	0
—— Sulphas, opt.		0	8
Manna optima		7	6
— communis		4	6
Moschus pod, (54s.)	in gr. unc.	60	0
Mastiche	lb.	7	0
Myristicæ Nuclei		20	0
Myrrha elect.		7	6
Olibanum		4	6
Opopanacis gummi resina		30	0
Opium (Turkey)		42	0
Opium (East India)			
Oleum Æthereum	oz.	2	0
— Amygdalarum	lb.	4	0
— Anisi	unc.	3	0
— Anthemidis		7	0
— Cassiæ		8	6
— Caryophilli		6	6
— Cajuputi		5	6
— Carui		1	6
— Juniperi Ang.		3	0
— Lavandulæ		6	0
— Lini	cong.	6	6
— Menthæ piperitæ	unc.	4	6
— Menthæ viridis Ang.		5	0
— Pimentæ	unc.	6	0
— Ricini optim.		11	0
— Rosmarini	unc.	1	0
— Succini 2s. 6d. —— rect.		5	0
— Sulphuratum	P. lb.	1	6
— Terebinthinæ		1	2
— —— rectificatum		2	0
Olivæ Oleum	cong.	24	0
— Oleum secundum		14	0
Papaveris Capsulæ	(per 100)	4	0
Plumbi subcarbonas	lb.	0	8
— Superacetas		2	6
— Oxydum semi-vitreum		0	9
Potassa Fusa	unc.	0	8
— cum Calce		0	6
Potassæ Nitras	lb.	1	2
— Acetas		10	0
— Carbonas		4	6
— Subcarbonas		1	8
— Sulphas		1	6
— Sulphuretum		2	6
— Supersulphas		0	9
— Tartras		3	6
— Supertartras		1	8

		s.	d.
Pilulæ Hydrargyri	unc.	0	9
Pulvis Antimonialis		0	9
— Contrayervæ comp.		0	6
— Tragacanthæ comp.		0	4
Resina Flava	lb.	0	6
Rhæi Radix (Russia)		36	0
—— (East India) opt.		12	0
Rosæ petala		10	0
Sapo (Spanish)		3	0
Sarsaparillæ Radix (Lisbon)		7	6
Scammoniæ Gummi-Resina	unc.	3	6
Scillæ Radix siccat. opt. Ang.	lb.	4	6
Senegæ Radix		4	0
Sennæ Folia		6	6
Serpentariæ Radix		7	6
Simaroubæ Cortex		4	0
Sodæ subboras		4	6
— Sulphas		0	8
— Carbonas		6	6
— Subcarbonas		0	2
— — exsiccata		4	6
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— —— aromaticus		5	6
— —— fœtidus		5	6
— —— succinatus		5	6
— Cinnamomi		3	0
— Lavandulæ		5	0

		s.	d.
Spiritus Myristicæ		3	6
— Pimentæ		3	6
— Rosmarini		5	0
— Ætheris Aromaticus		7	6
— — Nitrici		5	0
— — Sulphurici		7	0
— — Compositus		7	6
— Vini rectificatus	cong.	31	0
Syrupus Papaveris	lb.	2	0
Sulphur		0	9
— Sublimatum		1	0
— Lotum		1	2
— Præcipitatum		2	0
Tamarindi Pulpa opt.		2	0
Terebinthina Vulgaris		0	10
—— Canadensis		8	6
—— Chia		12	0
Tinct. Ferri muriatis		5	6
Tragacantha Gummi, elect.		8	0
Valerianæ Radix		1	8
Veratri Radix		2	6
Unguentum Hydrargyri fortius		5	6
—— —— Nitratis		2	8
—— —— Nitrico-oxydi		3	0
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NOTICES TO CORRESPONDENTS.

Communications have been received since our last acknowledgment from Mr. Curtis, Mr. Cooke, Mr. Williams, *and* Anthony White, M.B.; *all of which shall receive as early an attention as possible.*

We are requested by Mr. Mansford *to insert the following in the Errata of the last Number:—In page* 376, *line* 36, *the numbers ought to have been printed* 1 *in* 33, 2 *in* 43, 3 *in* 49, *&c.*

Further Errata.—Page 384, *guaiaicum* is printed for *guaiacum;* p. 402, *Endeometrical* for *Eudiometrical;* p. 427, *Encchymosis* for *ecchymosis.*

The Review of Mr. Gray's *Supplement to the Pharmacopœias was neglected to be noticed in the Table of Contents.*

We have been given to understand that the paper on Epistaxis, published in our last Number, had previously made its appearance in another publication. We are exceedingly sorry to hear this, as the transmission of it to us for publication implies a breach of trust with some one of the parties concerned.

*** *Communications are requested to be addressed (post paid) to*
Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

END OF THE TENTH VOLUME.

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